

**UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

AGERE SYSTEMS, INC., CYTEC  
INDUSTRIES, INC., FORD MOTOR  
COMPANY, SPS TECHNOLOGIES, LLC  
AND TI AUTOMOTIVE SYSTEMS LLC,

Plaintiffs,

vs.

ADVANCED ENVIRONMENTAL  
TECHNOLOGY CORPORATION, ET AL.,

Defendants.

Civil Action No. 02-CV-3830(LDD)

**PRETRIAL MEMORANDUM OF  
DEFENDANT ADVANCED  
ENVIRONMENTAL TECHNOLOGY  
CORPORATION**

**I. STATEMENT OF AETC'S CASE**

Advanced Environmental Technology Corporation ("AETC") is asserting contribution claims against the Plaintiffs and Defendants in this case pursuant to 42 U.S.C. § 9613 ("Section 113") of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601 et seq. ("CERCLA"); the Pennsylvania Hazardous Sites Cleanup Act, 35 P.S. §§ 6020 et seq. ("HSCA"); and common law contribution and indemnification. Through its claims, AETC is seeking this Court to equitably allocate liability for recoverable response costs incurred at the Boarhead Farms Superfund Site ("Boarhead," "Boarhead Farms," "Boarhead Farms Site" or the "Site") among the Plaintiffs, Defendants, settled Defendants and Orphan Shares.<sup>1</sup>

**A. THE PLAINTIFFS, DEFENDANTS AND SETTLED DEFENDANTS ARE  
LIABLE UNDER CERCLA**

CERCLA is a remedial statute that is construed liberally in order to effectuate the goal of holding parties responsible for releases of hazardous substances and to have those parties pay the costs of cleaning up contaminated sites. *B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1198 (2d Cir. 1992). In order to make out a prima facie claim under CERCLA, a pleader must establish that (1) the person complained of falls within one of the four classes of persons deemed responsible under the act; (2) a release of a hazardous substance occurred; (3) the

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<sup>1</sup> Any reference to Plaintiffs, Defendants, settled Defendants or Orphan Shares throughout this Memorandum will not include AETC.

release occurred at a facility; and (4) that such release resulted in the incurrence of response costs. Each of these four elements must be proven by a preponderance of the evidence.

1. There was a Release of Hazardous Substances at the Boarhead Farms Site.

Under CERCLA, “release” is defined as “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant)...” 42 U.S.C. § 9601(22). The term “release” is broad, and there is no specific threshold level of hazardous substance needed to give rise to CERCLA liability. A&W Smelter and Refiners, Inc. v. Clinton, 962 F.Supp. 1232 (N.D.Ca. 1997), aff’d in part and rev’d in part, 146 F.3d 1107. Furthermore, an actual release is not required in order to satisfy the Act. A threatened release, whereby a release of hazardous substances is imminent, is enough to trigger CERCLA coverage. Anschutz Min. Corp. v. NL Industries, Inc., 891 F.Supp.492 (E.D.Mo. 1995).

Moreover, CERCLA defines “hazardous substances” to include, among other things, any substance so designated by the Environmental Protection Agency (“EPA”) pursuant to Section 9602 of CERCLA or by any of four other environmental statutes, and any waste having certain characteristics as defined by the EPA (i.e., ignitability, corrosivity, reactivity, toxicity). 42 U.S.C. § 9601(14); 40 C.F.R. 261.20, et seq. The exact concentration levels of the hazardous substance are not relevant. Atlantic Richfield Co. v. Blosenski, 847 F.Supp. 1261 (E.D.Pa. 1994).

Hazardous substances have been found in the soil and groundwater at the Boarhead Farms Site. The presence of these hazardous substances is the result in part of disposal of such substances at the Site. Therefore, there has been a “release” of hazardous substances at the Boarhead Farms Site.

2. The Boarhead Farms Site is a Facility as Defined by CERCLA.

The term “facility” is defined by CERCLA as “...any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located...” 42 U.S.C. § 9601(9). CERCLA's definition of “facility” is intended to be expansive and includes any place hazardous substances can be found. An area is therefore a “facility” if hazardous substances are placed there or for any other reason have come to be located there. 3550 Stevens Creek Associates v. Barclays Bank of California, 915 F.2d 1355 (9th Cir. 1990), cert. denied, 111 S.Ct. 2014 (1991). Hazardous Substances came to be located at the Boarhead Farms Site, making the Boarhead Farms Site a “facility” under CERCLA.

3. The Plaintiffs, Defendants and Settled Defendants are Liable Parties under CERCLA.

The liability provision of CERCLA lists four classes of persons potentially liable under the Act which can be summarized as (1) the current owner and operator of a facility; (2) the former owners and operators of a facility at the time of disposal of any hazardous substance; (3) any person who arranged for disposal or treatment of a hazardous substance at any facility

owned or operated by another person; and (4) transporters of such substances to a facility. 42 U.S.C. § 9607(a)(1)-(4).

Furthermore, the term “person” is broadly defined as “an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States Government, State, municipality, commission, political subdivision of a State, or any interstate body.” 42 U.S.C. § 9601(21).

Except for Boarhead Corporation, which is the owner/operator of the Site, the Plaintiffs, Defendants and Settled Defendants are persons who arranged for the disposal of wastes that included hazardous substances. These hazardous substances came to be located at the Boarhead Farms Site, which is a facility where a release has occurred. Accordingly, the Plaintiffs, Defendants and Settled Defendants are liable parties under CERCLA.<sup>2</sup>

4. Pursuant to CERCLA, Liability for the Contamination at the Boarhead Farms Site must be Equitably Allocated among the Plaintiffs, Defendants and Settled Defendants.

Section 107 of CERCLA provides that potentially responsible parties (“PRPs”) are liable for, among other things, “all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan” and “any other necessary costs of response incurred by any other person consistent with the national contingency plan.” 42 U.S.C. § 9607(a)(4)(A)-(B) (“Section 107”). The Third Circuit Court of Appeals has held that Section 107 provides for joint and several liability. E.I. DuPont De Nemours and Co. v. U.S., 460 F.3d 515, 521-522 (3d Cir. 2006)(reversed on other grounds). Therefore, a party liable pursuant to Section 107 may be responsible for the entire obligation. By contrast, Section 113 of CERCLA provides that “[a]ny person may seek contribution from any other person who is liable or potentially liable under [Section 107] of this title, during or following any civil action under [Section 106] of this title or under [Section 107] of this title...” See also Cooper Industries, Inc. v. Aviall Services, Inc., 543 U.S. 157, 163 (2004).

The relationship and interplay between Section 107 and Section 113 have been litigated since CERCLA’s enactment in 1980. Most recently, the United States Supreme Court issued an opinion that addresses this relationship, finding that Section 107 of CERCLA provides private parties, including PRPs, with a cause of action to recover costs incurred from remedial action. United States v. Atlantic Research Corp., 127 S.Ct. 2331 (2007). The Court noted that a Section 107 action lies where a party has itself voluntarily incurred cleanup costs and by contrast, a Section 113 action lies where a party reimburses costs paid by other parties (i.e., “contribution”). Id. at 2338. The distinction is vital, as “the remedies available in §§ 107(a) and 113(f) complement each other by providing causes of action to ‘persons in different procedural circumstances.’” Id. at 2338; quoting Consol. Edison Co. v. UGI Utils., Inc., 423 F.3d 90, 99 (2d Cir. 2005), cert. denied, 127 S.Ct. 2995 (2007).

<sup>2</sup> This Court held on November 17, 2006, that AETC was liable under CERCLA and HSCA. On December 18, 2006, AETC moved before this Court for a Petition for Certification for Interlocutory Appeal. This motion was denied on February 7, 2007. AETC reserves the right to seek reconsideration or an appeal of this Court’s decision as to AETC’s liability.

The Supreme Court's recognition that Sections 107 and 113 provide distinct remedies to "persons in different procedural circumstances" is well illustrated in cases where a PRP has satisfied all or part of a settlement. A party that has paid to satisfy a settlement agreement pursuant to an action instituted under § 107 is explicitly permitted by the statute to file a contribution action under § 113(f)(3)(B) but cannot maintain a separate action under § 107. The relevant provision provides that "[a] person who has resolved its liability to the United States or a State for some or all of a response action or for some or all of the costs of such action in an administrative or judicially approved settlement may seek contribution from any person who is not a party to a settlement..." 42 U.S.C. § 9613(f)(3)(B). The Supreme Court recognized the unequivocal language in the statute and found that "[c]osts incurred voluntarily are recoverable only by way of § 107(a)(4)(B), and costs of reimbursement to another person pursuant to a legal judgment or settlement are recoverable only under § 113(f)." Atlantic Research, 127 S.Ct. at 238. (See also Kotrous v. Goss-Jewett Co. of Northern California, Inc., 2008 WL 1745338, 6 (9th Cir. 2008) (providing that a party may only bring a cost-recovery action under § 107(a) for costs the party itself incurred voluntarily in cleaning a site, and "must proceed under § 113(f)(1) for contribution if the party has paid to satisfy a settlement agreement or a court judgment pursuant to an action instituted under § 106 or § 107"). A party that incurs costs due to a settlement has not incurred costs voluntarily, and, therefore, may only seek contribution pursuant to § 113(f).

Even if Plaintiffs could maintain a Section 107 claim, the Supreme Court recognized that "a defendant PRP...could blunt any inequitable distribution of costs by filing a § 113(f) counterclaim." Atlantic Research, 127 S.Ct. at 2339. The end result would be an "equitable apportionment of costs among the parties, including the PRP that filed the § 107(a) action." Id. The filing of a Section 113 counterclaim should therefore protect that party from paying anything more than its fair share of the liability.

Plaintiffs, Defendants and Settled Defendants have not voluntarily incurred response costs at the Boarhead Farms Site. Therefore, the Plaintiffs are not entitled to a judgment of joint and several liability against AETC. Any § 113(f) liability for the contamination at the Boarhead Farms Site must be equitably allocated among the Plaintiffs, Defendants and Settled Defendants. AETC contends that its equitable allocation is de minimis if anything.

## **2. THE PLAINTIFFS, DEFENDANTS AND SETTLED DEFENDANTS ARE LIABLE UNDER THE HSCA.**

An entity responsible pursuant to the HSCA is strictly liable for (1) reasonable costs of interim response; (2) reasonable and necessary or appropriate costs of remedial response incurred by the United States, the state of Pennsylvania, or political subdivision; (3) other reasonable and necessary or appropriate costs of response incurred by any other person; (4) damages to natural resources; and (5) costs of health assessment or health effects studies. 35 P.S. § 6020.702(a).

Under the HSAC, a person may seek contribution from another responsible entity as part of a civil action. 35 P.S. § 6020.705(a). In such instances, the court should enter a judgment allocating liability among all the liable parties. 35 P.S. § 6020.705(b). The trier of fact is required to consider the following factors in allocating responsibility: (1) the extent to

which each party's contribution to the release can be distinguished; (2) the amount of hazardous substance involved; (3) the degree of toxicity of the hazardous substance; (4) degree of involvement and care exercised by the party; (5) the degree of cooperation by each party; and (6) knowledge by each party of the hazardous nature of the substance. Id.

The elements of liability under the HSCA are very similar to CERCLA. In order to support a prima facie cause of action pursuant to the HSCA, there must be a (1) release or threatened release; (2) of a hazardous substance; (3) from a site; and (4) there must be a responsible person as stated in subsection 701(a) of the HSCA. These four operative facts must be proven before a complainant can recover response costs. Each of these requirements is addressed below.

1. There was a Release of Hazardous Substances at the Boarhead Farms Site.

The HSCA broadly defines hazardous substances to include:

(1) Any element, compound or material which is:

(i) Designated as a hazardous waste under the...Solid Waste Management Act, and the regulations promulgated thereto.

(ii) Defined or designated as a hazardous substance pursuant to the Federal Superfund Act.

(iii) Contaminated with a hazardous substance to the degree that its release or threatened release poses a substantial threat to the public health and safety or the environment as determined by the department.

(iv) Determined to be substantially harmful to public health and safety or the environment based on a standardized and uniformly applied department testing procedure and listed in regulations proposed by the department and promulgated by the Environmental Quality Board.

35 P.S. § 6020.103.

Under the HSCA, the definition of "hazardous substances" is broader than in CERCLA; the HSCA definition includes the CERCLA designations as only part of its overall definition. As such, a substance that is defined as hazardous under CERCLA is also hazardous under the HSCA.

Also, in order to support a cause of action pursuant to the HSCA, it must be shown that a release or threatened release of a hazardous substance occurred. The statute defines "release" in language almost identical to that used in CERCLA. Specifically, the HSCA defines "release" as "[s]pilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposal into the environment. The term includes the abandonment or discarding of barrels, containers, vessels and other receptacles containing a hazardous substance or contaminant."

Hazardous substances have been found in the soil and groundwater at the Boarhead Farms Site. As a result, a release has occurred at the Site.

2. Boarhead Farms is a Site under the HSCA.

The term “site” in the HSCA is defined similarly to the term “facility” in CERCLA. “Site” is defined in the HSCA as:

[a]ny building; structure; installation; equipment; pipe or pipeline, including any pipe into a sewer or publicly owned treatment works; well; pit; pond; lagoon; impoundment; ditch; landfill; storage container; tank; vehicle; rolling stock; aircraft; vessel; or area where a contaminant or hazardous substance has been deposited, stored, treated, released, disposed of, placed or otherwise come to be located. The term does not include a location where the hazardous substance or contaminant is a consumer product in normal consumer use or where pesticides and fertilizers are in normal agricultural use.”

35 P.S. 6020.103

Hazardous substances were disposed of at Boarhead Farms. Therefore, Boarhead Farms is a “site” under the HSCA.

3. The Plaintiffs and Defendants are Responsible Persons under the HSCA.

The HSCA provides for three classes of persons responsible for the release of hazardous substances at a site. The general rule for determining whether a person is covered by the statute is as follows:

Except for releases of hazardous substances expressly and specifically approved under a valid Federal or State permit, a person shall be responsible for a release or threatened release of a hazardous substance from a site when any of the following apply:

(1) The person owns or operates the site:

(i) when a hazardous substance is placed or comes to be located in or on a site;

(ii) when a hazardous substance is located in or on the site, but before it is released; or

(iii) during the time of the release or threatened release.

(2) The person generates, owns or possesses a hazardous substance and arranges by contract, agreement or otherwise for the disposal, treatment or transport for disposal or treatment of the hazardous substance.

(3) The person accepts hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person from



whom there is a release or a threatened release of a hazardous substance which causes the incurrence of response costs.

35 P.S. § 6020.701.

“Person” is defined by the statute as “[a]n individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, authority, interstate body or other legal entity which is recognized by law as the subject of rights and duties. The term includes the Federal Government, state governments and political subdivisions.” 35 P.S. § 6020.103.

The Plaintiffs, Defendants and Settled Defendants are “persons” that arranged for the disposal of hazardous substances. These hazardous substances were disposed of at the Boarhead Farms Site. Accordingly, the Plaintiffs, Defendants and Settled Defendants are liable under HSCA and this Court should equitably allocate responsibility for the remediation of the Boarhead Farms Site among those parties. AETC contends that its equitable allocation is de minimis.

## **II. THE LAW OF THE CASE**

### **A. LIABILITY SHALL BE EQUITABLY APPORTIONED AMONG ALL SETTLED PARTIES.**

On June 30, 2004, this Court ordered that all future settlement agreements presented to the Court comply with the principles set forth in the June 30, 2004 Memorandum (“Memorandum”). To date, twelve<sup>3</sup> parties have settled pursuant to the terms of the Memorandum.

At issue before the Court at that time was Plaintiffs’ Motion for a Standing Order Regarding Dismissal of Settling Defendants. The Defendants objected to Plaintiff’s motion on the basis that such Standing Order would affect the liability of the Defendants by relieving the Settled Defendants of liability for contribution claims as to matters covered by the Settlement Agreement. This Court’s Memorandum therefore addressed the extent to which the non-settling Defendants’ liability should be offset by any settlement agreement.

This Court’s Memorandum recognized the strong interest in promoting settlement and also the flexibility given to courts in CERCLA cases to equitably allocate liability. The Memorandum provides that the degree to which a bar on contribution cross-claims will facilitate settlements outweighs the prejudice of such a bar on Defendants, and, therefore, the settling parties may be dismissed pursuant to a settlement agreement with protection from future cross-claims and contribution claims by non-settling parties.

In determining the proper approach for considering the Settled Defendants’ degree of fault among the parties, this Court weighed the advantages of the Uniform Comparative Fault Act (“UCFA”) and the Uniform Contribution Among Tortfeasors Act (“UCATA”), and

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<sup>3</sup> This number includes Flexible Circuits which, upon information and belief, has entered into good faith negotiations with Plaintiffs.

determined that the principles of the UCFA are more appropriate. The UCFA fosters settlements while achieving an equitable apportionment of liability for non-settling parties because comparative fault is not based upon the amount of the settlement, but rather based upon the parties' relative fault.

The Memorandum provides that Plaintiffs "bear the risk that the potential settling defendants' share of the cleanup costs may be greater than the settlement amount, [and] it is in the best interest of the plaintiffs to obtain a settlement that is closely related to the probable share for which the potential settling defendants would have been responsible." As a result, liability of the settled parties shall be equitably allocated among the Plaintiffs.

**B. ANY ORPHAN SHARE SHALL BE EQUITABLY ALLOCATED AMONG ALL PARTIES.**

On October 29, 2007, this Court issued an Order in response to Defendant AETC's Motion for an Order Declaring Equitable Allocation of the Diaz Chemical "Orphan Share" ("Order"). This Order finds that the Diaz Chemical Corporation share, if there is any, is orphaned. This Court also found that the Diaz share will be equitably distributed between the Plaintiffs and non-settling Defendants. (Order at 3).

The Court's Order provides that the term "orphan share" refers to either a hazardous waste stream which is not allocated to any party or to the portion of liability allocated to a defunct or insolvent party. Since Diaz Chemical Corporation is bankrupt, "it will be unable to pay any cleanup cost liability that is allocated to it. Thus, to the extent that any liability is allocated to Diaz, that share of the liability will be an orphan share." (Order at 2).

There are other entities responsible for the clean-up at the Boarhead Farms Site that are either bankrupt or insolvent. Given the Court's ruling on the Diaz share, the share of liability for these entities should also be equitably distributed between the Plaintiffs, Defendants and Settled Defendants.

**III. FACTS TO BE STIPULATED OR DETERMINED AT TRIAL**

**Plaintiffs**

**A. Ford Motor Company:**

1. Ford Motor Company ("Ford") is a Delaware corporation with a principal place of business in Dearborn, Michigan. (Pl.'s Fifth Amended Complaint, ¶ 32 (January 23, 2008)).

2. Ford is participating in the Plaintiffs' groups and is a signatory to the Consent Decrees based on contractual liability to the successors of Ford's former subsidiary, Philco-Ford Corporation ("Philco Ford"). (Plaintiffs' Responses to Interrogatories of Defendant Thomas & Betts Corporation ("Response to T&B Interrogatories"), at 9-10).

3. Ford is a "person" as that term is defined in CERCLA and the HSCA.



4. Philco-Ford was a Delaware corporation which operated two facilities located at 601 Liberty Street, Watson town, PA and 4700 Wissachicken Avenue, Philadelphia, PA. Both facilities are now closed. (Ford Motor Company's November 24, 1992 response (BSAI006037-006042) to the USEPA's request for information on the Boarhead Farms Site dated September 30, 1992 (BSAI006043); Response to T&B Interrogatories at 10).

5. In 1975, after the sale of the two Philco-Ford facilities, the name of the corporation was changed to Aeronutronic Ford Corporation and again in 1976 it was changed to Ford Aerospace and Communications Corporation. (Memorandum of J. Martin-Banks (EPA) dated March 30, 1994 (BSAI005378); Response to T&B Interrogatories at 10).

6. In 1982, a new entity, Ford Electronic and Refrigeration Corporation ("FERCO") was created and received the assets and liabilities of Ford Aerospace and Communications Corporation, other than those associated with aerospace and communications. (Memorandum of J. Martin-Banks (EPA) dated March 30, 1994 (BSAI005378); Response to T&B Interrogatories at 10).

7. FERCO's name was then changed to Ford Electronics and Refrigeration, LLC and conveyed to Visteon Corporation as part of a spin-off by Ford. (Response to T&B Interrogatories at 10).

8. Philco-Ford is a "person" as that term is defined by CERCLA and the HSCA.

9. The Watson town facility manufactured wood cabinets for televisions, stereos and radios and was sold by Philco-Ford in the early 1970s. Based upon the nature of the processes employed at the plant, it is possible that lacquer finishes, shellacs, wood glues, and hide glues were used in the manufacturing process. In or about the mid-1960's the plant did development work in high density foam, possibly urethane manufactured by PPG Industries. (Ford Motor Company's November 24, 1992 response (BSAI006037-006042) to the USEPA's request for information on the Boarhead Farms Site dated September 30, 1992 (BSAI006043)).

10. The Philadelphia Philco-Ford facility manufactured weaponry, such as sidewinder missiles, for the United States government. The Philadelphia facility ceased operations in approximately 1972. (Ford Motor Company's November 24, 1992 response (BSAI006037-006042) to the USEPA's request for information on the Boarhead Farms Site dated September 30, 1992 (BSAI006043); Deposition Transcript of Brian J. Bussa, dated February 8, 2005 ("Bussa Dep.") at 29:25-30:7).

11. Ford Motor Company was unable to locate any documents concerning the nature and quantity of by-products and wastes produced at these facilities between 1969 and 1975. (Ford Motor Company's November 24, 1992 response (BSAI006037-006042) to the USEPA's request for information on the Boarhead Farms Site dated September 30, 1992 (BSAI006043)).

12. Ford Motor Company does not dispute the DeRewal invoices, which indicate that Philco-Ford produced "waste finishing materials," "waste materials-plastics" and "industrial waste solution." These materials, amounting to approximately 38,940 gallons, were hauled and disposed of by DeRewal Chemical Company for a period of time in 1972-1973.

a. Industrial Waste Solution:

- (1) Invoice no. 448 dated July 14, 1972 for 32 drums of industrial waste solution (BSAI006155 and FORD000010);

Therefore, 1,760 gallons (32 drums x 55 gallons) of industrial waste solution were hauled and disposed of by DeRewal Chemical Company.

b. Waste Finishing Materials:

- (1) Invoice no. 395 dated March 24, 1972 for 63 drums of waste finishing material (BSAI003475 and FORD000009);
- (2) Invoice no. 469 dated August 18, 1972 for 61 drums of waste finishing material (BSAI006116 and FORD000011);
- (3) Invoice no. 746 dated October 31, 1973 for 60 drums of waste finishing material (BSAI006153 and FORD000012);
- (4) Release no. W24298, blanket order 003820, dated February 12, 1973 for 62 drums of waste finishing material (BH0003895 and FORD000128);
- (5) Release no W24441, blanket order 003820, dated March 28, 1973 for 120 drums of waste finishing material (BH0003896 and Ford 000130);
- (6) Invoice no. 72570 dated May 9, 1973 for 63 drums of waste finishing material pursuant to disposal contract CPO 003820 (FORD000134);

Therefore, 23,595 gallons (429 drums x 55 gallons) of waste finishing material were hauled and disposed of by DeRewal Chemical Company.

c. Waste Materials – Plastics:

- (1) Invoice no. 72343 dated April 20, 1973 for three loads (62, 61 and 62 drums each) of waste material-plastics pursuant to disposal contract CPO 003820 (FORD000131);
- (2) Invoice no. 72405 dated April 26, 1973 for 62 drums of waste material-plastics pursuant to disposal contact CPO 003820 (FORD000132);

Therefore, 13,585 gallons (247 drums x 55 gallons) of waste material – plastics were hauled and disposed of by DeRewal Chemical Company.

13. Wastes generated by Philco-Ford and hauled and disposed of by DeRewal Chemical Company include Hazardous Substances as defined under CERCLA and the HSCA.

14. The relationship between Philco-Ford and the DeRewal Chemical Company is further evidenced by correspondences between DeRewal Chemical Co. Inc. and Philco Ford and the depositions conducted in this case, including the following:

- a. A January 21, 1972 letter from Karen J. Bean of DeRewal Chemical Co., Inc. to Mr. Mike Margarite at Philco-Ford (FORD000123) provides a quote for the "transportation and disposal of liquid waste solution from Philco-Ford, Watsontown, PA. plant facilities at \$400.00 per tank truck containing 4000 gallons or \$400.00 per truck load of 55 gallon drums consisting of approximately 65 drums."
- b. A September 18, 1972 letter from Manfred T. DeRewal to Mr. M. L. Margarite at Philco-Ford (BSAI020959) extends purchase order no. 003820 and quotes the same price and terms for an additional year.
- c. A March 23, 1973 letter from Manfred DeRewal to Don Carter at Philco-Ford (BSAI020961) provides a quote for the removal of solid or liquid waste in 55 gallon drums at \$400.00 per truck load of 60 to 65 drums. The letter further provides that DeRewal agrees to transport the waste from the Philco Ford Watsontown plant facilities to its ultimate destination and take title to the waste at the time the truck is loaded. The letter also contains a hold harmless clause and warranty of compliance with all applicable federal state and local laws.
- d. Deposition Transcript of John C. Bean ("Bean Dep.") at 81:19-25; 82:1-6; 82:7-9; 82:10-16; 82:17-20; 82:21-23; 83:19-22).
- e. Deposition Transcript of Manfred Derewal, Jr. ("DeRewal Jr. Dep.") at 166:7-166:16; 166:17-20; 166:21-23).
- f. Deposition Transcript of Marvin Jonas dated April 15, 1986 ("Jonas Dep.") at 80:15-21; 80:22-24).
- g. Deposition Transcript of Jeffrey Shaak ("Shaak Dep.") at 118:23-119:12; 119:13-19; 121:11-15; 121:16-20; 121:21-24; 121:25-122:4).

15. DeRewal Chemical Company drivers employed during the January 1, 1972 to December 1, 1973 time period testified that the only site used for disposal during this period was the Boarhead Farms Site.

16. Specifically, Bruce DeRewal testified that he began working for his father before graduating from high school. (Deposition Transcript of Bruce DeRewal dated June 16, 2003 ("B. DeRewal Dep.") at 12:8-13:14). Bruce DeRewal was born on May 13, 1955. (B.

DeRewal Dep. 7:16-17). Therefore he graduated from high school in June of 1973 and drove for DCC starting in approximately Fall of 1972. The only disposal facility used during this time was the Boarhead Farms Site. (B. DeRewal Dep. at 21-24 and 34-38).

17. Jeffrey Shaak also worked for DeRewal Chemical Company in the 1972-1973 time period. (Shaak Dep. At 10:12-16, 11:4-19). He began working for DeRewal Chemical Company in the Fall of 1972 and continued until just prior to the opening of the Ontario Street facility in December of 1973. (Shaak Dep. at 26:23-27:15). Mr. Shaak testified that he took all wastes to the Boarhead Farms Site during this period of time. (Shaak Dep. at 27:23-56:11).

18. June Stephens testified that for the first few years of her employment with DeRewal Chemical Company beginning in approximately 1971, she "strictly returned to Boarhead Farms." (Deposition Transcript of June Stephens dated July 28, 2003 ("Stephens Dep.") at 170:1-171:2).

19. John Bean was a DeRewal Chemical Company driver on a part-time basis beginning roughly in 1973. (Bean Dep. at 86:12-20). John Bean testified that all of the waste he hauled prior to the opening of the Ontario Street facility was taken to the Boarhead Farm Site. (Bean Dep. 47:12-48:8).

20. While John Barsum had no recollection of personally hauling waste from Philco-Ford to Boarhead, he testified that in the early 1970's beginning in late 1971 or early 1972 he hauled waste to the Boarhead Farm Site. (Deposition Transcript of John Barsum dated September 8, 2003 ("Barsum Dep.") at 58:10-18, 102:16-18, and 301:18-24). During his deposition in this matter, Mr. Barsum confirmed the accuracy of an earlier affidavit dated April 28, 2000, which stated that, "prior to the opening of DeRewal Chemical Company's Ontario Street facility in Philadelphia, Pennsylvania, during the fall of 1973, I took all of the waste I hauled for DeRewal Chemical to the Boarhead Farms property." (Barsum Dep. at 252:15-21, 206:23-207:24 and Affidavit of John Barsum In the Matter of Boarhead Farms Superfund Site, dated April 8, 2000 and marked as Exhibit D-27 at John Barsum's deposition in this matter).

21. Manfred DeRewal, Jr. testified that he began driving for DeRewal Chemical Company prior to the opening of the Ontario Street Location and that, "in the beginning there was, we had a place in Frenchtown, New Jersey little bit of activity there, not much. And the rest of that time went back to Boarhead Farms." (DeRewal Jr. Dep. at 39:20-40:7). However, no drummed waste was disposed of at Frenchtown. (DeRewal Jr. Dep. at 40:23-41:7).

22. Philco-Ford's waste hauled by DeRewal Chemical Company was disposed of at the Boarhead Farms Site.

23. Hazardous substances generated by Philco-Ford have been released in to the environmental at or from the Boarhead Farms Site as these terms are defined in CERCLA and HSCA.

24. Response costs have been incurred as a result of the Hazardous Substances generated by Philco-Ford and released at or from the Site.

25. Ford is liable for response costs at the Site under CERCLA and the HSCA.

26. Ford has not and will not voluntarily incur response costs.

**B. SPS Technologies, LLC:**

1. SPS Technologies, LLC, a Pennsylvania corporation, is a successor to SPS Technologies, Inc. (Plaintiff's Fifth Amended Complaint, ¶ 32 (January 23, 2008)), which changed its name from Standard Pressed Steel Company in 1978 ("SPS").

2. SPS is a "person" as that term is defined in CERCLA and the HSCA.

3. SPS's manufacturing plant in Jenkintown, PA, which still operates today, has been in business since 1920, manufacturing precision fasteners and precision metal products. This manufacturing involves the forging, machining, grinding, rolling, heat treatment and plating of metal parts. (EPA Summary of SPS Response to USEPA 104(e) request dated November 8, 1995 (BSAI001395); 1969 Open House Plant Layout and Description of the SPS Facility (BSAI071053-56)).

4. From some time around 1969 through some time after 1977, there were three divisions at the Jenkintown Plant: (1) aerospace fastener division, (2) tool division, and (3) industrial fastener division (Deposition of Dennis Shea, dated February 9, 2005 ("Shea Dep.") at 13).

5. For a very brief time, until around 1969 or 1970, the Jenkintown Plant also contained the Hallowell division of SPS which manufactured metal furniture. (Shea Dep. at 13:4-12).

6. Manufacturing processes at the Jenkintown Plant included heat treating operations, precision plating, manufacturing of commercial and aerospace fasteners, and manufacture of rocket motor cases (1969 Open House Plant Layout and Description of the SPS Facility (BSAI071053-56)).

7. Ferric and non-ferric alloys were used as raw materials at the Jenkintown Plant. (Shea Dep. at 48).

8. As part of the manufacturing process, metal parts would go into a basket and get dipped into a degreaser. (Shea Dep. at 40:23-41:3; 87:17-21; BSAI035093). The waste stream from the degreasers was principally still bottoms, which were placed in 55-gallon drums and hauled off site. (Shea Dep. at 87:11-12; 88:11-16).

9. SPS used PCE as a degreaser. (Shea Dep. at 88:9).

10. SPS used a great variety of lubes and oils. (Shea Dep. at 56:3-5; 57:1-3).

11. Cyanide was used in the SPS plating department. (Deposition of David Stewart, dated January 10, 2005 ("Stewart Dep.") at 17:152:19-20).

12. SPS's waste included scrap metal, metal chips, steel drums, waste oils, grinding sludge, plant trash, plating waste water, waste solvent/degreaser fluid (including TCE and

acetone), waste cetyl alcohol, cyanide waste, nickel, chromic acid (plating waste), and filter cakes from a wastewater treatment plant. (104(e) response of SPS, dated June 23, 1988 (SPST 00189-191); 104(e) response of SPS, dated November 3, 1992 (SPST00090); EPA Summary of 104(e) response of SPS, dated February 5, 1996 (BSAI001395); Shea Dep. at 23:17-24; 50:19-25; 53:6-8; 56:3-5; 86:24-87:1 and Stewart Dep. at 53:11, 20, 84-85; BSAI035093; BSAI035093).

13. From 1973 to 1977, DeRewal Chemical Company removed cyanide, chromic acid, acetone, and other unknown material from the SPS facility located in Jenkintown, PA. (104(e) response of SPS, dated June 23, 1988 (SPST 00189-191); 104(e) response of SPS, dated November 3, 1992; SPST00322-00323; SPST00324; SPST00137-155, SPST00165-176 and SPST00234; SPS intracompany correspondence, dated April 27, 1977 (SPST00193); DeRewal Jr. Dep. at 164:3-15; 165:10-11; DeRewal, Sr. Dep. at 164:3-15).

a. Cyanide:

- (1) Invoice dated 3/11/73, 1,000 gallon tanker truck of cyanide (SPST00218).
- (2) Invoice dated 3/30/73, forty-three (43) 55-gallon drums of cyanide waste (SPST00329).
- (3) Invoice dated 3/30/73, forty-three (43) 55-gallon drums of scrap cyanide acid (SPST00328).
- (4) Invoice dated 9/22/73, twenty-four (24) 55-gallon drums of cyanide waste (SPST00222).
- (5) Invoice dated 6/6/73, (Quantity unknown) 55-gallon drums of cyanide (SPST00330).
- (6) Invoice dated 6/26/73, thirty (30) 55-gallon drums of cyanide (BSA1016594).
- (7) Invoice dated 6/26/73, thirty (30) 55-gallon drums of cyanide (BSA1035093).
- (8) Invoice dated 11/21/73, between one and fifty-five (1-55) 55-gallon drums of cyanide (SPST00332).
- (9) Invoice dated 1974, between one and sixty-three (1-63) 55-gallon drums of cyanide (SPST00340).
- (10) Invoice dated 7/31/73, 3500-gallon tanker truck of cyanide waste (SPST00165).
- (11) Invoice dated 7/31/73, 3500-gallon tanker truck of cyanide waste (SPST00354).



- (12) Invoice dated 1974, between one and twenty-eight (1-28) 55-gallon drums of cyanide (SPST00339).
- (13) Invoice dated 2/8/74, one truckload of chrome acid and waste cyanide (SPST00333).
- (14) Invoice dated 3/16/74, unknown quantity of 55-gallon drums of cyanide (SPST00334).
- (15) Invoice dated 6/24/74, unknown quantity of 55-gallon drums of cyanide (SPST00336).
- (16) Invoice dated 1/16/76, between one and sixty-six (1-66) 55-gallon drums of cyanide (SPST00203).
- (17) Invoice dated 2/17/76, between one and thirty-five (1-35) 55-gallon drums of cyanide (SPST00357).
- (18) Invoice dated 5/27/76, between one and fifty-nine (1-59) 55-gallon drums of cyanide (SPST00359).
- (19) Invoice dated 6/76, thirty-two (32) 55-gallon drums of cyanide (SPST00341).
- (20) Invoice dated 6/24/76, thirty-six (36) 55-gallon drums of cyanide (SPST00342).
- (21) Invoice dated 8/4/76, between one and fifty-nine (1-59) 55-gallon drums of cyanide (SPST00343).
- (22) Invoice dated 11/15/76, between one and sixty-five (1-65) 55-gallon drums of cyanide (SPST00363).
- (23) Invoice dated 2/24/77, between one and fifty (1-50) 55-gallon drums of cyanide (SPST00365).
- (24) Invoice undated, unknown quantity of cyanide (SPST00335).
- (25) Invoice undated, thirty-three (33) 55-gallon drums of cyanide (SPST00325).

b. Chromic acid:

- (1) Invoice dated 3/30/73, eleven (11) 55-gallon drums of chromic acid waste (SPST00329).
- (2) Invoice dated 3/30/73, eleven (11) 55-gallon drums of scrap chromic acid (SPST00328).

- (3) Invoice dated 9/22/73, thirty-eight (38) 55-gallon drums of chromic acid waste (SPST00222).
- (4) Invoice dated 6/6/73, unknown quantity 55-gallon drums of chromic acid (SPST00330).
- (5) Invoice dated 6/26/73, fourteen (14) 55-gallon drums of chromic acid (BSA1016594).
- (6) Invoice dated 6/26/73, fourteen (14) 55-gallon drums of chromic acid (BSA1035093).
- (7) Invoice dated 11/21/73, between one and fifty-five (1-55) 55-gallon drums of chromic acid (SPST00332).
- (8) Invoice dated 1974, between one and sixty-three (1-63) 55-gallon drums of chromic acid (SPST00340).
- (9) Invoice dated 1974, between one and twenty-eight (1-28) 55-gallon drums of chromic acid (SPST00339).
- (10) Invoice dated 3/16/74, unknown quantity of 55-gallon drums of chromic acid (SPST00334).
- (11) Invoice dated 6/24/74, unknown quantity of 55-gallon drums of chromic acid (SPST00336).
- (12) Invoice dated 1/16/76, between one and sixty-six (1-66) 55-gallon drums of chromic acid (SPST00203).
- (13) Invoice dated 2/17/76, between one and thirty-five (1-35) 55-gallon drums of waste chromic acid (SPST00357).
- (14) Invoice dated 5/27/76, between one and fifty-nine (1-59) 55-gallon drums of chromic acid (SPST00359).
- (15) Invoice dated 6/??/76, twenty-nine (29) 55-gallon drums of chromic acid (SPST00341).
- (16) Invoice dated 6/24/76, twenty-three (23) 55-gallon drums of chromic acid (SPST00342).
- (17) Invoice dated 8/4/76, between one and fifty-nine (1-59) 55-gallon drums of chromic acid (SPST00343).
- (18) Invoice dated 11/15/76, between one and sixty-five (1-65) 55-gallon drums of chromic acid (SPST00363).

- (19) Invoice dated 2/24/77, between one and fifty (1-50) 55-gallon drums of chromic acid (SPST00365).
- (20) Invoice undated, unknown quantity of chromic acid (SPST00335).

c. Acetone:

- (1) Invoice dated 6/6/73, unknown quantity 55-gallon drums of acetone (SPST00330).
- (2) Invoice dated 6/26/73, one (1) 55-gallon drum of acetone (BSA1016594).
- (3) Invoice dated 6/26/73, one (1) 55-gallon drum of acetone (BSA1035093).

d. Other/Unknown:

- (1) Invoice dated 6/6/73, unknown quantity 55-gallon drums of unknown material (SPST00330).
- (2) Invoice dated 6/6/73, unknown quantity 55-gallon drums of unknown material (SPST00330).
- (3) Invoice dated 6/26/73, two (2) 55-gallon drums of nickel (BSA1016594).
- (4) Invoice dated 6/26/73, thirteen (13) 55-gallon drums of degreasing fluid 18 (BSA1016594).
- (5) Invoice dated 6/26/73, two (2) 55-gallon drums of nickel (BSA1035093).
- (6) Invoice dated 6/26/73, thirteen (13) 55-gallon drums of degreasing fluid 18 (BSA1035093).
- (7) Invoice dated 10/24/74, sixty-seven (67) 55-gallon drums of waste etc. (SPST00337).
- (8) Invoice dated 10/26/74, sixty-six (66) 55-gallon drums of waste (SPST00338).
- (9) Invoice dated 7/10/75, sixty-six (66) 55-gallon drums of waste (SPST00234).
- (10) Invoice dated 1/30/76, sixty-six (66) 55-gallon drums of waste (SPST00356).

- (11) Invoice dated 2/17/76, thirty-seven (37) 55-gallon drums of waste (SPST00358).
- (12) Invoice dated 6/76, sixty-two (62) 55-gallon drums of industrial waste (SPST00341).
- (13) Invoice dated 6/24/76, fifty-nine (59) 55-gallon drums of waste (SPST00360).
- (14) Invoice dated 8/5/76, fifty-two (52) 55-gallon drums of waste (SPST00361/SPST00362).
- (15) Invoice dated 12/2/76, sixty-five (65) 55-gallon drums of waste (SPST00364).

14. From 1969 to 1976, Jonas Waste removed sludge, degreasing fluid, chromic acid, cyanide, and other/unknown material from the SPS facility located in Jenkintown, PA. (104(e) response of SPS dated June 23, 1988; SPST 00189-191; 104(e) response of SPS dated November 3, 1992; SPST00137-155, SPST00165-176 and SPST00234; DeRewal Jr. Dep. at 164:3-15; 165:10-11; DeRewal, Sr. Dep. at 164:3-15).

a. Sludge:

- (1) Invoice dated 12/22/69, twenty (20) 55-gallon drums of sludge from plating room (SPST00287).
- (2) Invoice dated 2/7/70, twenty-two (22) 55-gallon drums of sludge from plating room (SPST00289).
- (3) Invoice dated 3/25/70, thirty-six (36) 55-gallon drums of sludge (SPST00292).
- (4) Invoice dated 3/27/70, twenty (20) 55-gallon drums of sludge - plating waste (SPST00291).
- (5) Invoice dated 5/28/70, eighty-four (84) 55-gallon drums of sludge removed (SPST00297).
- (6) Invoice dated 8/19/70, eighty (80) 55-gallon drums of sludge removed (SPST00300).
- (7) Invoice dated 2/23/71, ninety-two (92) 55-gallon drums of sludge removed (SPST00304).
- (8) Invoice dated 2/3/71, ninety-two (92) 55-gallon drums of sludge, acid and alcohol, etc. (SPST00302).

- (9) Invoice dated 9/10/71, seventy-eight (78) 55-gallon drums of sludge (SPST00307).
- (10) Invoice dated 9/27/72, seventy-eight (78) 55-gallon drums of sludge removed (chromic acid) (SPST00306).

b. Degreasing fluid:

- (1) Invoice dated 6/2/70, twenty (20) 55-gallon drums of degreasing fluid (SPST(00294).
- (2) Invoice dated 6/2/70, fifty-six (56) 55-gallon drums of degreasing waste (SPST00296).
- (3) Invoice dated 8/19/70, forty-five (45) 55-gallon drums of waste degreasing material (SPST00298).
- (4) Invoice dated 8/24/70, forty-five (45) 55-gallon drums of waste degreasing material (SPST00299).
- (5) Invoice dated 6/19/72, three (3) 55-gallon drums of degreaser (SPST00316).
- (6) Invoice dated 6/19/72, three (3) 55-gallon drums of used degreaser (SPST00314).
- (7) Invoice dated 9/20/72, eight (8) 55-gallon drums of degreaser (SPST00319).
- (8) Invoice dated 10/13/72, eight (8) 55-gallon drums – scrap degreaser fluid (SPST00318).
- (9) Invoice dated 9/20/72, eight (8) 55-gallon drums of scrap degreaser fluid (SPST00317).

c. Chromic acid:

- (1) Invoice dated 3/25/70, twenty (20) 55-gallon drums of plating waste (SPST00290).
- (2) Invoice dated 6/2/70, five (5) 55-gallon drums of chromic acid (SPST00294).
- (3) Invoice dated 6/2/70, twenty-six (26) 55-gallon drums of chromic acid and waste plating (SPST00296).
- (4) Invoice dated 8/19/70, thirty-five (35) 55-gallon drums of chromic acid (SPST00298).

- (5) Invoice dated 8/24/70, thirty-five (35) 55-gallon drums of chromic acid (SPST00299).
- (6) Invoice dated 9/10/71, seventy-eight (78) 55-gallon drums of used chromic acid (SPST00305).
- (7) Invoice dated 9/21/71, twenty-seven (27) 55-gallon drums of chromic acid from plating (SPST00308).
- (8) Invoice dated 10/6/71, twenty-seven (27) 55-gallon drums of chromic acid from plating (SPST00309).
- (9) Invoice dated 3/22/72, sixty-eight (68) 55-gallon drums of chromic acid (SPST00311).
- (10) Invoice dated 4/5/72, between one and fifteen (1-15) 55-gallon drums of chromic acid (SPST00313).
- (11) Invoice dated 4/10/72, ten (10) 55-gallon drums of chromic acid (SPST00312).
- (12) Invoice dated 6/19/72, twenty-five (25) 55-gallon drums of chromic acid (SPST00316).
- (13) Invoice dated 6/19/72, twenty-five (25) 55-gallon drums of used chromic acid (SPST00314).
- (14) Invoice dated 9/13/72, twenty-five (25) 55-gallon drums of chromic acid (SPST00315).
- (15) Invoice dated 9/20/72, twenty-nine (29) 55-gallon drums of chromic acid (SPST00319).
- (16) Invoice dated 9/20/72, twenty-nine (29) 55-gallon drums of scrap chromic acid (SPST00317).
- (17) Invoice dated 10/13/72, twenty-nine (29) 55-gallon drums of scrap chromic acid (SPST00318).
- (18) Invoice undated, forty-two (42) 55-gallon drums of chromic acid (SPST00274).

d. Cyanide:

- (1) Invoice dated 4/5/72, between one and fifteen (1-15) 55-gallon drums of cyanide waste (SPST00313).
- (2) Invoice dated 4/10/72, thirty-four (34) 55-gallon drums of cyanide waste (SPST00312).



- (3) Invoice dated 6/19/72, eighteen (18) 55-gallon drums of cyanide (SPST00316).
- (4) Invoice dated 6/19/72, eighteen (18) 55-gallon drums of used cyanide (SPST00314).
- (5) Invoice dated 9/13/72, eighteen (18) 55-gallon drums of cyanide (SPST00315).
- (6) Invoice dated 9/20/72, thirty-one (31) 55-gallon drums of cyanide (SPST00319).
- (7) Invoice dated 9/20/72, thirty-one (31) 55-gallon drums of scrap cyanide acid (SPST00317).
- (8) Invoice dated 10/13/72, thirty-one (31) 55-gallon drums of scrap cyanide acid (SPST00318).

e. Other/Unknown:

- (1) Invoice dated 6/2/70, thirty-eight (38) 55-gallon drums of unknown material (SPST00294).
- (2) Invoice dated 6/19/72, two (2) 55-gallon drums of Getyl Alcohol (SPST00316).
- (3) Invoice dated 6/19/72, one (1) 55-gallon drums of "bright dip" (SPST00316).
- (4) Invoice dated 6/19/72, one (1) 55-gallon drums of used "bright dip" (SPST00314).
- (5) Invoice dated 6/19/72, two (2) 55-gallon drums of used cetyl alcohol (SPST00314).
- (6) Invoice dated 9/13/72, one (1) 55-gallon drum of "bright dip" (SPST00315).
- (7) Invoice undated, twenty-five (25) 55-gallon drums of unknown material (SPST00274).
- (8) Invoice illegibly dated, ten (10) 55-gallon drums of unknown material (SPST00293).
- (9) Invoice undated, twenty (20) 55-gallon full drums of unknown material (SPST00288).

- (10) Invoice dated 9/21/??, twenty-seven (27) 55-gallon drums of unknown material (SPST00310).

15. DeRewal and Jonas combined hauled approximately 1,236,088 gallons of waste from the SPS Jenkintown facility.

16. Wastes generated by SPS and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

17. Disposal of SPS's waste at Boarhead Farms occurred over a period of at least eight years – from 1969 through 1977. (receipts bates stamped SPST00357, SPST00219, BSAI013083, SPST00291, SPST00296; DeRewal Jr. Dep. at 164:19-165:4).

18. Drummed waste found at the Boarhead Farms, including but not limited to cyanide, has been attributed to SPS. (DeRewal, Jr. Dep., at 221; 223-4; Barsum Dep. at 142, 296 and 299).

19. Wastes generated by SPS and hauled and disposed of by Jonas Waste included Hazardous Substances as defined under CERCLA and the HSCA.

20. Hazardous substances generated by SPS have been released into the environment at or from the Boarhead Farms Site as these terms are defined in CERCLA and the HSCA.

21. Response costs have been incurred as a result of the Hazardous Substances generated by SPS and released at or from the Site.

22. SPS is liable for response costs at the Boarhead Farms Site under CERCLA and the HSCA.

23. SPS has not and will not voluntarily incur response costs.

**C. American Cyanamid Company (Cytex Industries, Inc.):**

1. The former American Cyanamid Company site was located in Bound Brook, New Jersey. (Letter from American Cyanamid to the United States Environmental Protection Agency, dated July 2, 1993 (BSAI073643-49)).

2. The American Cyanamid Bound Brook plant was the largest of the 9 American Cyanamid facilities. (Frankel Dep. at 15:22-16:22).

3. American Cyanamid Company's global chemical business was spun-off as a separate public company, Cytex Industries, Inc. in late 1994. (Deposition Transcript of Joel Jerome, January 6, 2005, at 6:15-19 ("Jerome Dep.")).

4. Cytex Industries, Inc. is the successor to American Cyanamid Company and each is a "person" as defined in CERCLA and the HSCA.

5. From 1969 to 1977, American Cyanamid's Bound Brook facility manufactured dyes, pigments, rubber chemicals, elastomers, organic intermediates and bulk pharmaceuticals. (Letter from American Cyanamid to the United States Environmental Protection Agency, dated July 2, 1993 (BSAI073643-49)).

6. Operations conducted during 1969 to 1977 were as follows:

- a. Research
- b. Administrative
- c. Analytical labs
- d. Warehouse and dyes blending
- e. Research pilot plant
- f. Dyes manufacturing
- g. Quality control laboratory
- h. Pharmaceutical manufacturing
- i. Elastomers and pre-polymer manufacturing
- j. Pigments manufacturing
- k. Rubber Chemicals manufacturing

(Letter from Cytec Industries Inc. to the USEPA, dated April 28, 1994, Jerome Dep. Exhibit 2).

7. From 1969 to 1977, there was a pharmaceutical department, rubber chemicals, intermediates department, environmental department, laboratories, engineering department and accounting department at the American Cyanamid Bound Brook facility. (Jerome Dep. at 29:10-30:6).

8. From 1969 to 1977, the DPA and 4NOX at the American Cyanamid facility in Bound Brook was under the intermediate department. (Jerome Dep. at 29:10- 30:6).

9. The American Cyanamid facility in Bound Brook had a large distillation column and the bottom layer of the distillation column was still pot organic residues. (Frankel Dep. at 54:16-56:12).

10. References in invoices, shipping orders and other documents to the American Cyanamid Building 688 refer to a distillation column. (Frankel Dep. at 54:16-56:12).

11. Waste solvents were generated from the intermediates department in Building 81 at the American Cyanamid Bound Brook facility. (Jerome Dep. at 59:20-60:14).

12. Ammonia generated in the 1970s at the American Cyanamid facility in Bound Brook could not go to the onsite wastewater treatment plant. (Jerome Dep. at 81:13-82:8).

13. From 1969 to 1977, two waste streams that were not treated on-site at the American Cyanamid facility in Bound Brook were (1) nitric and sulfuric acid from the 4NOX process, and (2) the waste ammonia from diphenylamine. (Jerome Dep. at 41:23-42:8).

14. Sidney Frankel began working with American Cyanamid at its Bound Brook facility in 1954. (Deposition Transcript of Sidney Frankel, dated January 24, 2005 ("Frankel Dep."), at 11:11-19).

15. Sidney Frankel's job at American Cyanamid from 1975 until 1977 involved the disposal of wastes from the facility. (Frankel Dep. at 15:22-16:22).

16. In 1977, Sidney Frankel became the environmental manager of the American Cyanamid Bound Brook facility. (Frankel Dep. at 42:15-43-6).

17. In 1977, when an internal plant generated waste at the American Cyanamid facility in Bound Brook, the waste was put into a drum and removed by the yard department from that manufacturing building. The waste was subsequently removed from the plant. (Frankel Dep. at 21:7-22:4).

18. In 1977, Sidney Frankel drafted a list of wastes that were being generated at the American Cyanamid facility in Bound Brook and the department from which each such waste was generated. (Frankel Dep. at 21:7-22:4, Frankel Exhibit 4).

19. In December 1977, Sidney Frankel created a facility wide numbering system for identifying waste from each department at the American Cyanamid facility in Bound Brook. (Frankel Dep. at 47:25-48:17).

20. Prior to December 1977, the American Cyanamid facility in Bound Brook used a numbering system for the waste that was generated by each plant and building. (Frankel Dep. at 46:19-47:16).

21. American Cyanamid at its Bound Brook facility used a "blanket purchase order", which allowed a hauler to come to the facility and take waste that was being generated. (Frankel Dep. at 66:10-67:2).

22. American Cyanamid had a relationship with Jonas starting in the early 1970s, specifically 1972. (Jerome Dep. at 83:13-23).

23. American Cyanamid's Bound Brook facility issued a blanket purchase order to Marvin Jonas for January 1, 1977 to December 1977. (Frankel Dep. at 68:1-69:2, Frankel Exhibit 3).

24. Marvin Jonas's only account in Bound Brook was American Cyanamid. (Deposition Transcript of Marvin Jonas, dated April 15, 1986, at 74:24-75:24).

25. American Cyanamid was a high volume customer of Marvin Jonas. (Deposition Transcript of Marvin Jonas, dated June 20, 1995, at 176:6-18).

26. The blanket purchase order American Cyanamid's Bound Brook facility issued to Marvin Jonas in 1977 was renewed in 1978. (Frankel Dep. at 73:10-25, Frankel Exhibit 5).

27. In 1976 and 1977, Marvin Jonas removed solvents, waste still bottoms, waste ammonia, isopropyl alcohol, and organic waste tar from the American Cyanamid facility located in Bound Brook, New Jersey.

a. Waste Solvents:

- (1) Invoice dated 8/3/76, one tank wagon of waste solvents from building 81 (BSA001705).
- (2) Invoice dated 8/4/76, one tank wagon of waste solvents from building 81 (BSAI001708).
- (3) Invoice dated 8/4/76, one tank wagon of waste solvents from building 81 (BSAI001709).
- (4) Invoice dated 8/5/76, one tank wagon of waste solvents from building 81 (BSAI001710).
- (5) Invoice dated 8/8/78, one tank wagon of waste solvents from building 81 (BSAI007845).
- (6) Invoice dated 8/11/76, one tank wagon of waste solvents from building 81 (BSAI001714).
- (7) Invoice dated 8/11/76, one tank wagon of waste solvents from building 81 (BSAI001715).
- (8) Invoice dated 8/31/76, one tank wagon of waste solvents from building 81 (BSAI001728).
- (9) Blanket purchase order issued on January 1, 1977 to cover a period of January 1, 1977 to December 31, 1977, includes waste solvents (BSAI007833-007834).
- (10) Invoice dated 2/76, waste solvents, flammable (BSAI001736).
- (11) Invoice dated 2/3/77, one tank wagon of waste solvents from building 81 (BSAI001737).
- (12) Invoice dated 2/3/77, one tank wagon of waste solvents from building 81 (BSAI001738).
- (13) Invoice dated 2/10/77, one tank wagon of waste solvents from building 81 (BSAI007886).
- (14) Invoice dated 2/10/77, one tank wagon of waste solvents from building 81 (BSAI007887).

- (15) Invoice dated 2/16/77, one tank wagon of waste solvents from building 81 (BSAI007891).
- (16) Invoice dated 2/18/77, one tank wagon of waste solvents from building 81 (BSAI007894).
- (17) Invoice dated 2/21/77, one tank wagon of waste solvents from building 81 (BSAI007897).
- (18) Invoice dated 2/25/77, one tank wagon of waste solvents from building 81 (BSAI007903).
- (19) Invoice dated 2/25/77, one tank wagon of waste solvents from building 81 (BSAI007904).

b. Waste Still Bottoms:

- (1) Invoice dated 8/31/76, one tank wagon of waste still bottoms from building 872 (BSAI001723).
- (2) Invoice dated 9/3/76, one tank wagon of waste still bottoms from building 872 (BSAI 001724).
- (3) Invoice dated 8/31/76, one tank wagon of waste still bottoms from building 872 (BSAI007873).
- (4) Invoice dated 2/23/77, one tank wagon of waste still bottoms from building 872 (BSAI007900).
- (5) Invoice dated 2/23/77, one tank wagon of waste still bottoms from building 872 (BSAI007901).

c. Waste Ammonia:

- (1) Invoice dated 7/21/76, one tank wagon of waste ammonia from building 688 (BSAI001702).
- (2) Invoice dated 7/76, one tank wagon of waste ammonia from building 688 (BSAI001696).
- (3) Invoice, one tank wagon of waste ammonia from building 688 (BSAI007837).
- (4) Invoice dated 7/22/76, one tank wagon of waste ammonia from building 688 (BSAI001698).
- (5) Invoice dated 7/23/76, one tank wagon of waste ammonia from building 688 (BSAI001699).



- (6) Invoice dated 7/26/76, one tank wagon of waste ammonia from building 688 (BSAI001700).
- (7) Invoice dated 7/27/76, one tank wagon of waste ammonia from building 688 (BSAI001701).
- (8) Invoice dated 8/2/76, one tank wagon of waste ammonia from building 688 (BSAI001704).
- (9) Invoice dated 8/3/76, one tank wagon of waste ammonia from building 688 (BSAI001706).
- (10) Invoice, one tank wagon of waste ammonia from building 688 (BSAI007847).
- (11) Invoice dated 8/7/76, one tank wagon of waste ammonia from building 688 (BSAI001712).
- (12) Invoice dated 8/11/76, one tank wagon of waste ammonia from building 688 (BSAI001713).
- (13) Invoice dated 8/12/76, one tank wagon of waste ammonia from building 688 (BSAI001716).
- (14) Invoice dated 8/12/76, one tank wagon of waste ammonia from building 688 (BSAI001717).
- (15) Invoice dated 8/23/76, one tank wagon of waste ammonia from building 688 (BSAI007858).
- (16) Invoice dated 8/23/76, one tank wagon of waste ammonia from building 688 (BSAI007859).
- (17) Invoice dated 8/26/76, one tank wagon of waste ammonia from building 688 (BSAI001719).
- (18) Invoice dated 8/30/76, one tank wagon of waste ammonia from building 688 (BSAI001721).
- (19) Invoice, one tank wagon of waste ammonia from building 688 (BSAI001722).
- (20) Invoice, one tank wagon of waste ammonia from building 688 (BSAI007864).
- (21) Invoice dated 7/21/76, one tank wagon of waste ammonia from building 688 (BSAI007868).

- (22) Invoice, one tank wagon of waste ammonia from building 688 (BSAI007869).
- (23) Invoice dated 8/76, one tank wagon of waste ammonia from building 688 (BSAI001730).
- (24) Invoice dated 9/8/76, one tank wagon of waste ammonia from building 688 (BSAI007867).
- (25) Invoice dated 8/31/76, one tank wagon of waste ammonia from building 688 (BSAI007872).
- (26) Invoice, one tank wagon of waste ammonia from building 688 (BSAI001726).
- (27) Invoice, one tank wagon of waste ammonia from building 688 (BSAI001727).
- (28) Invoice dated 2/2/77, one tank wagon of waste ammonia from building 688 (BSAI007876).
- (29) Invoice dated 2/2/77, one tank wagon of waste ammonia from building 688 (BSAI001735).
- (30) Invoice dated 2/77, one tank wagon of waste ammonia from building 688 (BSAI001882).
- (31) Invoice dated 2/10/77, one tank wagon of waste ammonia from building 688 (BSAI001884).
- (32) Invoice dated 2/16/77, one tank wagon of waste ammonia from building 688 (BSAI007892).
- (33) Invoice dated 2/17/77, one tank wagon of waste ammonia from building 688 (BSAI007893).
- (34) Invoice dated 2/18/77, one tank wagon of waste ammonia from building 688 (BSAI007895).
- (35) Invoice dated 2/21/77, one tank wagon of waste ammonia from building 688 (BSAI007898).
- (36) Invoice dated 2/22/77, one tank wagon of waste ammonia from building 688 (BSAI007899).
- (37) Invoice dated 2/25/77, one tank wagon of waste ammonia from building 688 (BSAI007902).

d. Isopropyl Alcohol:

- (1) Invoice dated 8/31/76, one tank wagon of isopropyl alcohol waste (BSAI001729).
- (2) Invoice dated 2/10/77, one tank wagon of isopropyl alcohol waste (BSAI007885).
- (3) Invoice dated 2/11/77, one tank wagon of isopropyl alcohol waste (BSAI007889).

e. Waste Tar Organic Liquid:

- (1) Invoice dated 2/2/76, one tank wagon of waste tar from building 114 (BSAI001703).
- (2) Invoice dated 8/6/76, one tank wagon of waste tar from building 114 (BSAI001711).
- (3) Invoice dated 8/24/76, one tank wagon of waste tar from building 114 (BSAI001718).
- (4) Invoice dated 8/27/76, one tank wagon of waste tar from building 114 (BSAI001720).
- (5) Invoice dated 8/31/76, one tank wagon of waste tar from building 114 (BSAI001732).
- (6) Invoice dated 2/2/77, one tank wagon of waste tar from building 114 (BSAI001739).
- (7) Invoice dated 2/11/77, one tank wagon of waste tar from building 114 (BSAI007888).
- (8) Invoice dated 2/15/77, one tank wagon of waste tar from building 114 (BSAI007890).
- (9) Invoice dated 2/20/77, one tank wagon of waste tar from building 114 (BSAI007896).

28. Invoices regarding the disposal of American Cyanamid's waste for the 1976-1977 time period were signed by drivers for DeRewal Chemical Company. (See Invoices listed above).

29. Sidney Frankel supervised the creation of a document entitled "Summary of Wastes handled by Jonas." (Frankel Dep. at 88:19-89:17).

30. Marvin Jonas disposed of nitric and sulfuric waste acid from the 4NOX process and ammonia waste from diphenylamine generated at the American Cyanamid facility in Bound Brook. (Jerome Dep. at 42:9-25).

31. Waste still bottoms from the American Cyanamid facility in Bound Brook were disposed off-site by Marvin Jonas. (Jerome Dep. at 63:19-64:7).

32. Wastes generated by American Cyanamid and hauled by Marvin Jonas included Hazardous Substances as defined under CERCLA and the HSCA.

33. American Cyanamid's waste was taken to the Marvin Jonas transfer facility in Sewell.

34. At times, DeRewal Chemical Company drivers would pick up waste from the Marvin Jonas facility in Sewell and dispose of it at the Boarhead Farms Site. (Barsum Dep., 165:2-166:11).

35. DeRewal Chemical Company also used tankers from Marvin Jonas to pick up waste at the American Cyanamid facility in Bound Brook. (DeRewal Jr. Dep. at 203:24-204:10).

36. Manfred DeRewal, Sr. had a very close relationship with individuals at the American Cyanamid facility in Bound Brook. (Deposition Transcript of Manfred DeRewal, Sr., dated May 8, 2003 ("DeRewal Sr."), at 385:19-387:8).

37. DeRewal Chemical Company picked up waste from the American Cyanamid facility in Bound Brook for at least two years and maybe more. (Deposition Transcript of John Barsum, dated September 8, 2003 ("Barsum Dep."), at 277:16-278:20).

38. DeRewal Chemical Company used a 4,500 gallon tank truck to pick up waste from the American Cyanamid facility in Bound Brook in the 1970s. (Barsum Dep. at 278:8-279:17).

39. A portion of the ammonia wastewater that was generated at the American Cyanamid Bound Brook facility between 1969 and 1977 was going to DeRewal Chemical Company. (Jerome Dep. at 52:15 – 53:4-16).

40. In the 1970s, DeRewal Chemical Company would sometimes make two runs in the same day to the American Cyanamid facility located in Bound Brook. (Barsum Dep. at 318:20-319:11).

41. From 1973 to 1975, DeRewal Chemical Company made three to four pick ups a week of ammonia waste from the American Cyanamid facility in Bound Brook using a tanker that was 6,000 to 8,000 gallons. (Deposition Transcript of Manfred DeRewal, Jr., dated May 13, 2003 ("DeRewal Jr. Dep."), at 162:13-163:13).

42. Wastes generated by American Cyanamid and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

43. DeRewal Chemical Company in the 1970s picked up ammonia from the American Cyanamid facility in Bound Brook and disposed of it at the Boarhead Farms Site. (Barsum Dep. at 279:13-280:14).

44. Marvin Jonas disposed of approximately 14.9 million gallons of waste from the American Cyanamid Bound Brook facility from 1970 to 1977. (Invoices listed above; Jonas Operation Statement covering activities during 1974; Jonas Ledgers for 1976, 1977 and 1979).

45. Hazardous substances generated by American Cyanamid have been released into the environment at or from the Boarhead Farms Site as that term is defined in CERCLA and the HSCA.

46. Response costs have been incurred as a result of the hazardous substances generated by American Cyanamid and released at or from the Site.

47. American Cyanamid is liable for response costs at the Site under CERCLA and the HSCA.

48. American Cyanamid has not and will not voluntarily incur response costs.

**D. Agere Systems, Inc.:**

1. Agere Systems, Inc. ("Agere") is a Delaware corporation with its principal place of business in Allentown, Pennsylvania. (Plaintiffs' Fifth Amended Complaint, ¶ 32 (January 23, 2008)).

2. Agere is the successor in interest to Western Electric Company, Inc. ("Western Electric").

3. Western Electric and Agere are each a "person" as that term is defined in CERCLA and the HSCA.

4. During the period from 1969 through 1977, Western Electric's Allentown, Pennsylvania and Reading, Pennsylvania facilities generated hazardous wastes which included: trichloroethylene, non-flammable solvents, corrosive waste acids, nitric acid, and hydrofluoric mixes. (Lucent Technologies Response to the Environmental Protection Agency, dated May 29, 1997, ("Lucent Tech. EPA Resp.") (AGER000069-118)).

5. Karen Castillo was employed by Manfred Derewal, Sr. to perform general secretarial duties beginning in 1960, and recollects typing letters or invoices to Western Electric while working from the Boarhead Farms Site. (Deposition of Karen Castillo, dated June 3, 2003 ("Castillo Dep.") at 11:2-4).

6. Marvin Jonas brought material from Western Electric to the Boarhead Farms Site. (DeRewal, Sr. Dep. at 210:15-211:7).

7. Wastes generated by Western Electric and hauled and disposed of by Marvin Jonas included Hazardous Substances as defined under CERCLA and the HSCA.

8. From 1969 to 1977, Agere's Allentown and Reading facilities generated approximately 3,317,888 gallons of hazardous wastes that were hauled by DeRewal Chemical Company. (Lucent Tech. EPA Resp. (AGER000069-118); DeRewal, Sr. Dep. at 210:15-211:7).

9. Hazardous Substances generated by Western Electric have been released into the environment at or from the Site as those terms are defined in CERCLA and the HSCA.

10. Response costs have been or will be incurred as a result of the waste generated by Western Electric and released at or from the Boarhead Farms Site.

11. Agere is liable for response costs at the Boarhead Farms Site under CERCLA and the HSCA.

12. To the extent that Agere is found not liable pursuant to CERCLA or the HSCA, it has no claim against AETC.

13. Agere has not and will not voluntarily incur response costs.

**E. TI Group Automotive Systems, LLC:**

1. TI Group Automotive Systems, LLC ("TI") is a Delaware limited liability company with a principal place of business in Warren, Michigan. (Plaintiffs' Fifth Amended Complaint, ¶ 32 (January 23, 2008)).

2. TI is a "person" as that term is defined in CERCLA and the HSCA.

3. TI is the successor by merger to Bundy Corporation, a Michigan corporation. Bundy Corporation changed its name in or about October 1999 to TI Group Automotive Systems Corporation ("TIGASC"). TI Group plc, a U.K. corporation, became the ultimate parent of TIGASC in or about 1987. In or about December 2000, TI Group plc merged into Smiths Industries plc, and the surviving company changed its name to Smiths Group plc. (Plaintiffs' Fifth Amended Complaint (January 23, 2008)).

4. Pursuant to an April 25, 2001 Transfer Agreement, Smiths Group plc transferred the shares of TIGASC to 329th Shelf Investment Company Limited ("329"). As part of that transaction, Smiths Group plc agreed to indemnify TIGASC and 329 for all liabilities concerning the Site. TI has agreed with Smiths Group plc that it will seek to recover and repay to Smiths Group plc all sums paid by Smiths on TI's behalf through this action. (Plaintiffs' Fifth Amended Complaint).



5. Since April 2001, Smiths Group plc has caused its subsidiaries, Smith Group Services Corp. and Smiths Group North America, Inc. (“collectively “the Smiths”), to transfer funds into the OU-1 and OU-2 Group Trust Accounts on behalf of TI. (Plaintiffs’ Fifth Amended Complaint).

6. TI seeks cost recovery and contribution from Defendants for the response costs TI has incurred by making payments itself into the OU-1 and OU-2 Group Trust Accounts. TI also seeks recovery and contribution from Defendants in its name on behalf of Smiths.(Plaintiffs’ Supplemental Response to Joint Contention Interrogatory No. 123, served on February 8, 2008.).

7. The Court has ruled that Smiths are time barred from bringing any claims in this action. As a result, the Plaintiffs cannot seek to recovery monies allegedly paid by the Smiths. (Memorandum and Order, dated January 14, 2008, regarding Plaintiffs’ Motion for Leave to Amend Fourth Amended Complaint).

8. The NRM plant in Malvern, PA (the “Malvern property”) treated and finished hot rolled steel coils. (Evaluation of Cyanide Treatment Alternatives for National Rolling Mills, Inc., Environmental Resources Management, Inc., November 15, 1989).

9. Bundy Corporation, now TI, owned the Malvern property until May 31, 1974.

10. Operations at the Malvern property included the following processes: (1) pickling, (2) cleaning line, (3) cold rolling, (4) annealing, (5) re-rolling/temper rolling, (6) slitting, (7) plating and (8) painting (Deposition of Fred Piotti, Sr. (“Piotti Dep.”), dated January 13, 2005, at 18:17-25, 26:19- 27:24; Deposition of Fred Chesky (“Chesky Dep.”), dated December 17, 2004, at 20:1-25, 23:5-25, 38:7-25, 40:1-25 and 42:1-25; Expert Report, Joseph Hochreiter, Jr. (9/29/2006)).

11. Wastes from the processes at the Malvern property included hydrochloric acid solution, ferric/ferrous chloride, caustic rinses consisting of water containing sodium hydroxide, waste emulsified oils, sludge, water/sodium cyanide mixture, filtrates, crystalline sodium carbonate waste products, and a slurry of grease and oil contaminated with cyanide. (See Valley Forge Sewer Authority Application for Industrial Waste Discharge Permit dated May 2, 1986, Expert Report, Joseph Hochreiter, Jr. (9/29/2006)).

12. According to Marvin Jonas’s accounting ledgers, he began hauling waste from the Malvern property as early as July 1973. (Jonas Ledger).

13. Fred Chesky testified as to recalling that Jonas Disposal and DeRewal Chemical Co. hauled spent acid from the Malvern Property during the early 1970s. (Chesky Dep. 57:23-25 – 61:1-23, Exhibit Chesky -2; 00412; 00423-00425; 00428-00430; 00435; 00436; 00438; 00440; 00444; 00445; 00447-00450; 00452; 00453; 00455; 00498; 00512; 00522; 00530 and BH0003863).

14. From July 1973 until November 1973, Jonas’ ledger shows that \$15,070 worth of waste were removed from the Malvern Property. Assuming that DeRewal was charging NRM \$.04 per gallon for this removal service, which is consistent with the amount he was

charging other customers for similar waste in the same area during the relevant time period, Mr. DeRewal's drivers transported 376,750 gallons of ferrous chloride from the Malvern Property even before his Philadelphia operations ever opened. (Letter from Catherine Trinkle to Mary Platt, dated February 3, 2000).

14. Wastes generated at the Malvern property hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

15. Hazardous Substances generated at the Malvern property have been released into the environment at or from the Boarhead Farms Site as those terms are defined in CERCLA and the HSCA.

16. Response costs have been incurred as a result of the hazardous substances generated by NRM and released at or from the Site.

17. TI is liable for the response costs at the Boarhead Farms Site.

18. To the extent that TI is found not liable pursuant to CERCLA or the HSCA, it has no claim against AETC.

19. TI has not and will not voluntarily incur response costs.

### **Non-Settled Defendants**

#### **A. Carpenter Technology Corporation:**

1. Carpenter Technology Corporation ("Carpenter") is a corporation located in Reading, Pennsylvania. (Carpenter Technology Corporation's 104(e) Response to the Environmental Protection Agency, dated July 12, 1988 and February 14, 1996 ("Carpenter 104(e)"), (BSAI025172)).

2. Carpenter is a "person" as that term is defined in CERCLA and the HSCA.

3. Carpenter is currently a manufacturer of specialty steel products and had manufactured such products during the period in question from 1969 through 1977. (Carpenter 104(e) (BSAI025171)).

4. The three most prevalent metals in stainless steels are iron, chromium and nickel. (Deposition Transcript of David Mann, dated November 9, 2004 ("Mann Dep.") at 86:22-88:7).

5. Carpenter used a pickling process. Pickling was used to remove metallic oxides ("scale") and dirt from bars and wire coils. Pickling is accomplished by immersing the steel in acid. (Carpenter 104(e) (BSAI025171)).

6. The pickling solutions went to the holding tanks. (Adams Dep. 56:21-23).

7. Carpenter initially became involved with the pickling process through maintaining pickling tanks. (Deposition Transcript of James I. Adams, dated November 10, 2004 (“Adams Dep.”), at 20:9-13). As a result of this process, waste acids were produced and temporarily stored in lagoons or holding tanks until hauled off site for disposal. (Adams Dep. at 23:5-14).

8. Carpenter used some waste acids for neutralizing within the plant. (Adams Dep. 31:18-22). Specifically, prior to 1965, Carpenter neutralized on site – through a process called “lagooning.” (Adams Dep. 35:21-25; 36:1-5). After 1965, Carpenter began construction of the first three of five holding tanks. (Adams Dep. 36:6-12).

9. The four largest waste streams generated during 1969-1977 by Carpenter were pickling acids, “grindings,” steel bag, and refractory brick. (Carpenter 104(e) (BSAI025171)).

10. During the 1970s, there were two types of acids at the Carpenter plant, one was very dilute rinse water acids and the other was concentrated waste acids. (Mann Dep. at 17:11-20).

11. James Adams began working with Carpenter in November of 1952. (Adams Dep. at 13:1-10).

12. James Adams was employed as a mechanical engineer within the engineering department by Carpenter. (Adams Dep. at 15:4-7).

13. James Adams became involved with responsibility for the wastewater treatment plant in 1968. (Adams Dep. 18: 12-16).

14. David Mann was employed by Carpenter from 1968 to 1977. (Mann Dep. at 10:8-17).

15. David Mann’s first job at Carpenter in 1968 was process control, where he was involved with furnace design and automatic instrumentation. (Mann Dep. at 12:10-16).

16. After working with Carpenter for approximately two years, David Mann was asked to conduct work regarding waste treatment plant systems, which included waste acids. (Mann Dep. at 12:24-13:2).

17. In the 1970s at the Carpenter plant, the dilute rinse water acids were processed at the waste treatment plant. (Mann Dep. at 18:1-4).

18. In the 1970s at the Carpenter plant, the concentrated waste acids were put into holding tanks. (Mann Dep. at 18:5-7).

19. The main sources for the holding tanks were Buildings 48A and 48B. (Adams Dep. 49:15-20). Buildings 48A and 48B contained as many as 600 different alloys in the process plant. (Adams Dep. 60:10-25).

20. The waste acid storage tanks were comprised of acid from multiple areas, including Block No. 1 cleaning line, Block No. 2 cleaning line, bench cleaning line, strip finishing line, and disc inspection. (Deposition Transcript of Robert Elbert, dated January 28, 2005 ("Elbert Dep."), at 41:13-25; 42:1-3). Each of these areas used acid to clean wire, strip or bar. (Elbert Dep. at 43:2-9).

21. Classified lines of individual acid flowed to individual holding tanks. In order to access the tanks, the truckers that came to pick up the waste acids would have to get through a guarded gate. (Adams Dep. 46:12-24).

22. Waste acids that were created at Carpenter and contained within the three holding tanks included: hydrochloric acid, nitric/hydrofluoric acid, and straight nitric. (Adams Dep. 53:1-7; Mann Dep. at 54:3-14).

23. The hydrochloric spent acid came from the bench and block departments where the surface of metals were prepared for pickling and cleaning. (Mann Dep. at 57:5-13).

24. In the 1970s, Carpenter analyzed the spent hydrochloric acid for various metals, including, iron, chromium and nickel because these were the metals that came in contact with the acid during the processes at the plant. (Mann Dep. at 60:12-62:13; Mann Dep. at 52:25-53:18).

25. In the 1970s, the highest quantity of spent acid generated by Carpenter was hydrochloric acid. (Mann Dep. at 56:10-18).

26. Carpenter shipped most of its waste pickle liquors off-site in tanker trucks during 1969-1977. (Carpenter 104(e) (BSAI025171)).

27. Richard Cheri was first hired by Carpenter in 1956 and retired in 1999. (Cheri Dep. at 9:17-10:4).

28. Richard Cheri was in the purchasing department at Carpenter from 1969 until 1999. (Cheri Dep. at 11:17-20).

29. In the 1970s, Carpenter would use blanket purchase orders for the procurement of certain goods and services. (Cheri Dep. at 18:22-19:8).

30. In the 1970s, a blanket purchase order at Carpenter could cover the procurement of services for a stated period of time. (Cheri Dep. at 18:22-19:8).

31. In the 1970s, Richard Cheri was the buyer for Carpenter of waste acid removal services. (Cheri Dep. at 21:19-23:19).

32. In the 1970s, Carpenter had a special engineering environmental group that was involved in procuring a buyer for removal of waste acids from the facility and assisted with pick-ups made by waste haulers by examining the truckloads of waste. (Mann Dep. at 24:1-19; Deposition Transcript of Richard Cheri, dated November 8, 2004 ("Cheri Dep."), at 25:16-26:1).

33. Carpenter contracted with the DeRewal Chemical Company for the removal of its waste in an agreement dated June 12, 1973. (Carpenter 104(e) (BSAI025186)).

34. Pursuant to its June 12, 1973 agreement, Carpenter issued a blanket purchase order to DeRewal Chemical Company for the removal of waste pickling liquor from its facility for the calendar year 1974. (Cheri Dep. at 36:17-37:19, Cheri Exhibit 3).

35. Carpenter utilized "cost centers" to account for charges of materials and activities used within the facility. (Adams Dep. 21:12-23).

36. James Adams approved the bills for payment of the acid haulers. (Adams Dep. 35:13-16).

37. William Reger began working at Carpenter in 1959 and left Carpenter in 1985. (Deposition Transcript of William Reger, dated December 15, 2004 ("Reger Dep."), at 9:4-7).

38. In 1959, William Reger was a production engineer for Carpenter. (Reger Dep. at 9:8-12).

39. From 1959 to 1968, William Reger was involved in almost all phases of manufacturing at the Carpenter plant. (Reger Dep. at 11:12-18).

40. William Reger made summaries from purchasing invoices during his tenure at Carpenter for each hauler of waste acid from its facility. (Reger Dep. at 14:1-25; 17:10-18 and 22:22-24:10; Cheri Exhibits 7 and 8; Cheri Dep. at 19:21-21:18, 53:9-20, 55:5-21; Adams Dep. at 22:14-23).

41. In the 1970s, the DeRewal Chemical Company hauled waste including, but not limited to, pickling liquor from the Carpenter plant. (Mann Dep. at 104:9-105:25; Elbert Dep. at 69:7-11, Cheri Dep. at 40:25-41:18).

42. In the 1970s, DeRewal Chemical Company picked up waste from the Carpenter facility five times a day for weeks at a time. (Deposition Transcript of Bruce DeRewal, dated June 16, 2003 ("B. DeRewal Dep.") at 44:1-13).

43. In the 1970s when the DeRewal Chemical Company picked up acid waste from the Carpenter facility, it used a rubber lined tanker truck to pick up such waste. (B. DeRewal Dep. at 45:1-9).

44. In the 1970s, the concentrated acid waste at the Carpenter plant was disposed of off-site. (Mann Dep. at 158:16-159:6; Carpenter 104(e) at BSAI025171).

45. Wastes generated by Carpenter and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

46. DeRewal Chemical Co. disposed of the waste generated by Carpenter during the period from 1969 through 1977 at the Boarhead Farms Site.

47. Acid waste from the Carpenter plant was disposed of at the Boarhead Farms Site. (Deposition Transcript of Manfred DeRewal Jr., dated May 12, 2003 ("DeRewal Jr.") at 135:6-136:9).

48. From 1972 until 1975, Carpenter generated approximately 1,732,772 gallons of spent acid and pickle liquor waste that were hauled by DeRewal Chemical Company. (Carpenter 104(e) (BSAI025204)).

49. Invoices indicated that both DeRewal Chemical Company and Jonas Waste Disposal hauled hazardous wastes from Carpenter during the 1970s. (C48207; C47972; CART 0011; CART 0012; CART 0014; CART 0028; CART 0030; CART 0031; CART 0032; CART 0034; BSAI025169-BSAI025217; BSAI025190; BSAI025196).

50. Hazardous Substances generated by Carpenter have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

51. Response costs have been or will be incurred as a result of the Hazardous Substances generated by Carpenter and released at or from the Site.

52. Carpenter is liable for response costs at the Site under CERCLA and HSCA.

**B. Handy & Harman Tube Co., Inc.:**

1. Handy and Harman Tube Company, Inc. ("H&H") is a Delaware corporation with a principal place of business in Norristown, Pennsylvania.

2. H&H is a "person" as that term is defined in CERCLA and the HSCA.

3. Handy & Harman Tube Co., Inc. ("H&H") is a corporation in the business of manufacturing small diameter stainless, nickel alloy, carbon and alloy steel tubing in a wide range of diameters, wall thickness, shapes and forms. The nature of H&H's business between the years 1969 and 1977 was similar to its current operations. (January 7, 1993 letter from H&H to the USEPA).

4. The H&H manufacturing process included a degreasing bath using TCE, a pickling operation using nitric, hydrochloric and hydrofluoric acids, spent oils, sandblast dust and inert materials contaminated by TCE, and a lubricating process that uses oils. General office trash was also generated. (January 7, 1993 letter from H&H to the USEPA).

5. H&H used solvents in its operations.

TCE:

- a. Deposition of Thomas Bell ("Bell Dep.") at 50:15-23; 51:9-19; 52:16-23; 52:24-53:8-14; 54:6-18; 54:19-25; 55:2-6; and 55:24 -56:8.

- b. Deposition of Thomas M. Curran ("Curran Dep.") at 6:14-25; 48:18-48:22; 55:25-56:13; 6:14-25; 57:1-2; 57:21-58:11 and the Curran USEPA interview summary.
- c. Deposition of Mary Kollmar ("Kollmar Dep.") at 24:1-16; 17:17-24; 24:18-25:1; and the M. Kollmar USEPA interview summary.
- d. H&H's responses to plaintiffs' interrogatories, page 13.
- e. Letter dated January 17, 1993 from Curran to USEPA (Curran Exhibit 1) providing supplemental information to September 30, 1992 USEPA questionnaire;
- f. Site Investigation Report prepared for H&H by RMC Environmental Service, Inc. dated September 1992; and
- g. Letter dated October 29, 1992 from Rosato to USEPA in response to USEPA questionnaire.

Acetone: (Bell Dep. at 69:12-18; Curran Dep. at 48:23 -49:7)

MEK: (Curran Dep. at 48:23 -49:7; 55:25 - 56:13)

6. H&H used acids in its operations, including, but not limited to, nitric, hydrochloric and hydrofluoric acids mixed with water that passed into H&H's waste stream.

- a. Curran Dep. at 15:19-25; 16:1-6; 16:13-16; 17:9-18:20:25-22:8; 30:6 - 30:10; 25:24-26:4; 27:11-13; 30:6 - 30:10 and the T. Curran USEPA interview summary.
- b. Kollmar Dep. at 17:17-24 and Kollmar USEPA interview summary.
- c. Deposition of Larry Rees ("Rees Dep.") at 30:6-12
- d. Letter dated January 17, 1993 from Curran to USEPA (Curran Exhibit 1) providing supplemental information to September 30, 1992 USEPA questionnaire;

7. H&H generated a waste stream identified as "industrial waste solution" during a two-week shutdown period for maintenance purposes every summer.

- a. Curran Dep. at 52:22-53:19; 53:20-24; 54:10-55:21; 68:22-69:2; and the T. Curran USEPA interview summary.



- b. Letter dated January 17, 1993 from Curran to USEPA (Curran Exhibit 1) providing supplemental information to September 30, 1992 USEPA questionnaire;

8. In addition to the above identified waste streams, H&H produced a waste stream as a result of the polishing process comprised of mostly water with the grit and metals including, nickel, chrome, traces of sulfur, silicon, and copper. (Curran Dep. at 71:3-21 and 72:2-12).

9. Additional waste streams would have resulted from “[n]ormal oils, like a 10W-30, 5W-30 used to cool some of the machines and some of the furnaces (Curran Dep. at 72:24-73:13) and waste lubricants. (Rees Dep. at 15:1-14).

10. The waste streams generated by the H&H facility from 1969 through 1977 included general plant trash including packaging material and office refuse. A waste stream designated as “Industrial Waste Solution” was also shipped off-site for disposal. The exact chemical make-up of this waste stream is unknown, but likely contains both solids and liquids based on past operations. (January 7, 1993 letter from H&H to the USEPA). No manifests or other records concerning the amount and/or disposal of wastes were located for the time period. (Id.)

11. H&H’s hazardous waste disposal and accounting records only date back to 1980. However, some “long time employees” remember dealing with DeRewal Chemical Company. “They do not remember what [H&H] shipped or received or the quantities of materials that were handled by DeRewal.” (Letter dated October 29, 1992 from H&H to USEPA; Summary of Interview of Jay Crawford dated February 5, 1993; Summary of Interview of Mary Kollmar dated February 5, 1993; Summary of Interview of Thomas Curran dated February 5, 1993; ).

12. Invoices indicate that at least one shipment of waste was sent to DeRewal Chemical Company from H&H’s Norristown, Pennsylvania facility. The invoice, no. 571, dated February 5, 1973, indicates that 25 empty 55-gallon drums were delivered. The invoice further indicates that a 250-gallon tank was emptied and 26 55-gallon and 36 30-gallon drums containing “Industrial Waste Solution” were picked up. (Invoice dated February 5, 1973 ) (BSAI030931).

- 13. H&H used DeRewal Chemical Company as a waste hauler in or around 1973.
  - a. J. Crawford USEPA interview summary;
  - b. M. Kollmar USEPA interview summary;
  - c. Invoice No. 571, dated February 5, 1973;
  - d. Deposition of Bruce DeRewal (“B. DeRewal Dep.”) at 42:6-8; 42:9-43:21; 50:16-51:4; 55:21-56:3; and 56:7-18;

- e. Deposition of Manfred DeRewal, Jr. ("DeRewal Jr. Dep.") at 119:12-14; 122:18-20 and 397:1-15.
- f. Deposition of John Barsum ("Barsum Dep.") at 122:16-124:7; 124:23-25; 125:16-23; 124:24-25; 326:20-327:23; and 328:12-14.
- g. Letter, dated October 29, 1992, from H&H to USEPA in response to USEPA questionnaire.

14. DeRewal driver John Barsum recalls picking up between 10-15 drums of waste at H&H on one occasion. (Deposition Transcript of John Barsum, dated September 8, 2003 ("Barsum Dep."), at 326:21-327:23).

15. DeRewal driver Bruce DeRewal recalls picking up 20 drums at H&H less than 10 times. (Deposition Transcript of Bruce DeRewal, dated June 16, 2003 ("B. DeRewal Dep."), at 50:16-56:15).

16. DeRewal driver Manfred DeRewal, Jr. recalls picking up waste at H&H at least once. (Deposition Transcript of Manfred DeRewal, Jr., dated May 12, 2003 ("DeRewal, Jr. Dep."), at 119:12-122:20).

17. Waste generated by H&H and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

18. H&H's wastes were disposed of at the Boarhead Farms Site. (B. DeRewal Dep. at 50:16-56:15; DeRewal, Jr. Dep. at 119:12-122:20).

19. Hazardous Substances generated by H&H have been released into the environment from the Site as that term is defined in CERCLA and the HSCA.

20. Response costs have been incurred as a result of the Hazardous Substances generated by H&H and released at or from the Site.

21. H&H is liable for response costs at the Site under CERCLA and HSCA.

**C. National Rolling Mills (NRM Investment Company):**

1. The National Rolling Mills facility in Malvern, Pennsylvania treats and finishes hot rolled steel coils (Evaluation of Cyanide Treatment Alternatives for National Rolling Mills, Inc., Environmental Resources Management, Inc., November 15, 1989).

2. Bundy Corporation (now Plaintiff TI) owned the facility until May 31, 1974 when it sold the property to National Rolling Mills Investment Co. ("NRM"). (Response of NRM Investment to Initial Disclosure Requirement of CMO, dated January 31, 2003, Edward Fackenthal, Attorney for Defendant NRM Investment Company, March 26, 2003).

3. NRM operated the facility until it transferred it to CM-National Rolling Mills Inc., a Delaware Corporation ("NRM-DE") on August 30, 1979. (Response of NRM

Investment to Initial Disclosure Requirement of CMO, dated January 31, 2003, Edward Fackenthal, Attorney for Defendant NRM Investment Company, March 26, 2003).

4. NRM-DE operated the NRM facility until it sold it to Worthington Industries on February 15, 1984. (Response of NRM Investment to Initial Disclosure Requirement of CMO dated January 31, 2003, Edward Fackenthal, Attorney for Defendant NRM Investment Company, March 26, 2003).

5. Operations at the NRM facility included the following processes: (1) pickling, (2) cleaning line, (3) cold rolling, (4) annealing, (5) re-rolling/temper rolling, (6) slitting, (7) plating and (8) painting (Deposition of Fred Piotti, Sr. ("Piotti Dep."), dated January 13, 2005, at 18:17-25, 26:19- 27:24; Deposition of Fred Chesky ("Chesky Dep."), dated December 17, 2004, at 20:1-25, 23:5-25, 38:7-25, 40:1-25 and 42:1-25; Expert Report, Joseph Hochreiter, Jr. (9/29/2006)).

6. In the early or mid 1970s, the facility used cyanide in the plating bath (Deposition of Peter G. Freda, dated December 8, 2004 ("Freda Dep."), at 37:2-12). The cyanide material was mixed with water before it was taken off site from the facility. (Deposition of Merle Winters, dated December 3, 2004 ("Winters Dep."), at 36:1-22).

7. Electrolytic plating solution with zinc was used beginning in 1974 at the facility (Freda Dep. at 35:6). Specifically, a solution with metal ions and rectification powder was used to plate zinc onto the surface of the steel. (Freda Dep. at 36:7-21). There was a holding tank at the very end of the line at the facility which held the plating material and carbonate crystals (Freda Dep. at 39:17-21; Winters Dep. at 59:8-9).

8. Processes including metal cleaning, neutralized hot rolled steel strip pickling and nickel/zinc plating generated rinse waters which were treated to remove cyanide and heavy metal contaminants at the facility (Evaluation of Cyanide Treatment Alternatives for National Rolling Mills, Inc., Environmental Resources Management, Inc., November 15, 1989).

9. The facility used acids in its manufacturing processes. (Piotti Dep. at 75:14-76:25; Chesky Dep. at 48:1-49:9; Freda Dep. at 14, 17, 18, 23-24).

10. Solvents such as MEK were used at the facility. (Chesky Dep. at 20:19-25; Winters Dep. at 39:22; Expert Report, Joseph Hochreiter, Jr.).

11. Wastes from the processes at the facility included hydrochloric acid solution, ferric/ferrous chloride, caustic rinses consisting of water containing sodium hydroxide, waste emulsified oils, sludge, water/sodium cyanide mixture, filtrates, crystalline sodium carbonate waste products, and a slurry of grease and oil contaminated with cyanide (Valley Forge Sewer Authority Application for Industrial Waste Discharge Permit dated May 2, 1986, Expert Report, Joseph Hochreiter, Jr. (9/29/2006)).

12. The waste from the facility's cleaning tanks went to the filtration system (Winters Dep. at 34:9-24). Before the filtration system, the waste was tanked off the property (Winters Dep. at 34). Sludge from the filtration plant at the facility was hauled off site (Winters Dep. at 23:23-25).

13. The reclamation plant became operational at some point in between 1969 and 1974. (Piotti Dep. at 32:13-21). The acid reclaiming facility was designed to distill, recapture, and reuse the waste. Once up and running, the facility's waste acid from the pickle line would be piped into the reclamation plant. (Piotti Dep. at 38:1-39:9; Freda Dep. at 24:21-25). Once the plant became insufficient to meet the facility's disposal needs, the facility arranged to outsource its waste disposal. However, prior to the reclamation plant approximately 6,000-gallons of spent acid would be hauled from the facility. (Chesky Dep. at 54:3-16).

14. Waste oils were produced from the Z-mills at the facility. (Winters at 30:1-24). In addition, small amounts of waste oil were generated from the tempering process at the facility. (Winters Dep. at 39:8-9).

15. NRM used Marvin Jonas, Inc. and Jonas Waste Removal, Inc. to haul industrial waste, chemical waste, highly corrosive materials, process waste, acidic or caustic material, material in tank trucks, waste material and liquid material. (Response of SPS to 104(e) request dated April 22, 1987; Piotti Dep. at 56:5-8 and 74:1-25; Deposition of Santo F. Quici ("Quici Dep.") at 15:24, 17:4-5, and 21:1-8; Winters Dep. at 28:15-24; letter dated February 3, 2000 to Mary Platt with attachments from Pitney Hardin; invoices (BSAI074137 to BSAI074449).

16. Mr. Jonas made a February 18, 1975 submission to NJDEP detailing his waste handling in calendar year 1974, which indicates that 58,232 gallons of waste from the facility were "recycled" to "DeRewal, Doylestown, PA." (Letter dated February 18, 1975 to the EPA from Jonas Incorporated).

17. Wastes generated by NRM hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

18. After approximately one year, DeRewal Chemical Company began billing NRM directly for waste disposal services instead of using Jonas as a middle agent. (Letter, dated February 3, 2000, to Mary Platt from Pitney Hardin; DeRewal, Sr. Dep. at 157:12-20; 158:19-20; 159:20-23; Jonas ledger marked as Exhibit Barsum 8; Quici Dep. at 23:11-18).

19. NRM contracted Jonas to dispose of 1,225,040 gallons of waste. (NRM invoices to Jonas).

20. It is possible that a spill of pickle liquor at Boarhead Farm in October of 1973 originated from Bundy's National Rolling Mills plant. (DeRewal, Sr. EPA Dep., dated December 11, 1996, 75:2-76:6).

21. NRM is a "person" as that term is defined in CERCLA and the HSCA.

22. Hazardous Substances generated by NRM have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

23. Response costs have been or will be incurred as a result of the Hazardous Substances generated by NRM and released at or from the Site.

24. NRM is liable for response costs at the Site under CERCLA and HSCA.

**D. Diaz Chemical Corporation:**

1. Diaz Chemical Corporation (“Diaz”) had no dealings with DeRewal Chemical Company until January 1977. (Letter from Margaret Bonn, Diaz Chemical to USEPA dated 6/24/88).

2. All of the loads that John Barsum picked up from the Diaz plant went to Wissinoming – none went to the Boarhead Farms Site. (Deposition of John Barsum, dated September 8, 2003 (“Barsum Dep.”), at 171:20-24).

3. The Diaz invoices all stated that the waste was going to Wissinoming. (Deposition Transcript of Manfred DeRewal Jr., dated May 13, 2003 (“DeRewal Jr. Dep.”), at 191:13-23; BSAI000152; BSAI000164; BSAI000175; BSAI000180; BSAI000189; BSAI000199; BSAI000211; BSAI000212; BSAI000231; BSAI000246; BSAI000261; BSAI000267; BSAI000275; BSAI029142; BSAI029143; BSAI029154; BSAI029156; BSAI029156-BSAI029160; BSAI029157-BSAI029158; BSAI029165; BSAI029172-BSAI029180; BSAI029181-BSAI029189; BSAI029190-BSAI029194; BSAI029195-BSAI02923; BSAI029196; BSAI029197; BSAI029211; BSAI02922; BSAI029237; BSAI029238-BSAI029239; BSAI029240-BSAI029241; BSAI029242-BSAI029243; BSAI029244-BSAI029245; BSAI029246-BSAI029247; BSAI029248-BSAI029249; BSAI029250-BSAI029251; BSAI029252-BSAI029254; BSAI029255-BSAI029256; BSAI029257-BSAI029258; BSAI029259-BSAI029260; BSAI029261-BSAI029262; BSAI029263-BSAI029264; BSAI029294; BSAI1029211).

4. Manfred DeRewal Jr. deceived Diaz into believing that its waste would be disposed of at Wissinoming. (DeRewal Jr. Dep. at 191:13-23).

5. Diaz produced two products during the 1976 and 1977 time period. (Deposition of Theodore Jenny, dated January 24, 2005, 32:15-33:8). Neither of these products generated waste streams containing metals. (Id. at 37:1-19; Deposition of Robert Landmesser, dated December 6, 2004 (“Landmesser Dep.”), at 188:20-189:1).

6. The only waste taken from Diaz was sulphuric acid. (B. DeRewal at 60:19-25).

7. Representatives of Diaz knew the constituent make-up of the Diaz waste streams. (See generally, Deposition of Theodore Jenny, dated January 24, 2005 (“Jenny Dep.”)).

8. Diaz consisted of a three-man management team, and it was common practice for one of them to investigate waste sites before any waste was sent to a site; and no waste was sent to a place that had not previously been visited. (Jenny Dep. at 65:9-66:10).

9. A Diaz representative from the management team did in fact claim to have visited the waste disposal site in Wissinoming. (Jenny Dep. at 66:5-9).

10. Manfred DeRewal Sr. met with Diaz representatives at least twice. One of the meetings took place at Boarhead Farm. After the meeting at Boarhead Farm the Diaz

representative and his wife went out to dinner with Manfred DeRewal Sr. as part of a “social event.” (Deposition of Manfred DeRewal Sr., dated June 7, 2003 (“DeRewal Sr. Dep.”), at 175:16-178:24).

**E. Ashland, Inc.:**

1. In the 1970s, Ashland Chemical Company (“Ashland”) owned and operated a facility in Great Meadows, New Jersey. (Deposition of Arthur Curley, dated December 9, 2004 (“Curley Dep.”), at 14:23-15:24).

2. In the 1970s, at its Great Meadows facility, Ashland operated a specialty chemicals plant. Ashland made small quantities of product for different companies. (Curley Dep. at 15:5-24).

3. Arthur Curley was the plant manager of the Great Meadows facility from 1974 until the early 1980s. (Curley Dep. at 14:23-24 and 17:1-3).

4. In the 1970s, Ashland was producing at its Great Meadows facility cyclo methyl propylamine (“CPMA”), dyes, chlorodinitro benzotrifluoride (“CDN”), Dipan and Phthalide. (Curley Dep. at 20:20-25:3 and 38:14-15).

5. In the 1970s, the CDN process conducted at the Ashland Great Meadows facility generated spent nitric acid waste. Ashland was able to make at most two batches of CDN per day. The waste from each batch was approximately 2300 to 2500 gallons. (Curley Dep. at 48:4-49:14).

6. In the 1970s, the dye-making process at the Ashland Great Meadows facility generated waste solvents and isopropyl alcohol. The batches of dye production were very small, 100 to 300 gallons. (Curley Dep. at 53:17-54:35).

7. In the 1970s, the CMPA process at the Ashland Great Meadows facility did not generate any waste. (Curley Dep. at 57:7-10).

8. In the 1970s, the Phthalide process at the Ashland Great Meadows facility generated a Phthalide acid layer that contained zinc. The Phthalide process was not conducted at the Great Meadows facility on a consistent basis. (Curley Dep. 58:1-59:7).

9. In 1976, the waste streams from the Ashland Great Meadows facility were tested. (Curley Dep. at 59:24-60:2).

10. The waste streams generated at the Ashland Great Meadows facility in 1976 and 1977 were placed in storage tanks. (Curley Dep. at 65:11-16).

11. In 1976-1977, there were separate storage tanks for dye wastes at the Ashland Great Meadows facility. (Curley Dep. at 66:1-11).

12. In 1976-1977, there was a separate storage tank at the Ashland Great Meadows facility for spent solvents, including benzene and toluene. (Curley Dep. at 66:2-21).



13. In 1976-1977, the spent acid from the CDN process at the Ashland Great Meadows facility was stored in a separate storage tank. (Curley Dep. at 67:8-10).

14. In 1976-1977, the Phthalide waste stream from the Phthalide process at the Ashland Great Meadows facility was stored in a separate storage tank. (Curley Dep. at 67:18-21).

15. In 1976, a load of CDN spent acid waste taken from the Ashland Great Meadows facility would have been approximately 2300 to 2700 gallons. (Curley Dep. at 76:21-24).

16. In 1970s, the CDN spent acid waste generated at the Ashland Great Meadows facility was disposed of off-site because Ashland could not take care of it on-site. (Curley Dep. at 83:5-8).

17. In 1976 and 1977, the main waste stream from the Ashland Great Meadows facility was from the CDN process. (Curley Dep. at 11:6-8).

18. Because of the nature of the waste, in 1976 and 1977, Ashland had a difficult time finding a facility to take the CDN waste from its Great Meadows plant. (Curley Dep. at 111:10-23).

19. There were few alternatives to the off-site handling of Ashland's acid waste stream. Absent the use of an alternative, the Ashland facility basically would be shut down. (Deposition Transcript of John Leuzarder, dated November 29, 2004 ("Leuzarder Dep. 1"), at 34:17-35:5).

20. In considering the disposal of Ashland's wastes, the company "wasn't worried particularly about environmental problems . . ." Ashland was worried about "strictly prices, how it would affect the profit of the products." (Curley Dep. at 117:5-118:7).

21. Arthur Curley, plant manager of Ashland mentioned to John Leuzarder and Robert Landmesser of AETC that he was having a difficult problem with oxidizing acid and asked if they knew someone that could do it. AETC then called the State of Pennsylvania and the State of New Jersey to find someone that could handle Ashland's waste. (Leuzarder Dep. I. at 35:18-36:5).

22. In 1976 and 1977, Ashland's Great Meadows facility used Modern Transportation, R&R, Louis Stamato and DeRewal Chemical Company to haul its waste. (Curley Dep. at 86:13-87:18 and 89:14-24).

23. According to Arthur Curley, when Ashland began to use AETC, it was Mr. Curley's understanding that AETC did not have a prior relationship with DeRewal Chemical Company. (Curley Dep. at 112:23-113:3).

24. John Leuzarder was Arthur Curley's primary contact at AETC. (Curley Dep. at 113:15-17).



25. AETC quoted prices to Ashland for the services of Environmental Chemical Control (DeRewal), Modern Transportation, and others. Ashland rejected the prices from Modern Transportation. AETC went back to Ashland, after speaking with someone from Ashland, probably Curley, and made another quotation to Ashland for DeRewal. (Deposition Transcript of John P. Leuzarder Jr. dated November 29, 2004 ("Leuzarder Dep. II") at 178:15 - 179:7).

26. AETC dealt with almost all of Ashland's wastes during 1976 to 1977. Arthur Curley testified that the dye solvent waste went for incineration. (Curley Dep. at 114:21-24; 115:1-11; 145:7-22 and 145:23-148:22).

27. Arthur Curley testified that DeRewal Chemical Company did not handle the dye liquor waste stream generated at the Ashland Great Meadows facility in 1976 to 1977. Mr. Curley testified that Modern Transportation handled this waste stream. (Curley Dep. at 144:20-145:6).

28. Arthur Curley testified that DeRewal Chemical Company did not handle the solvent waste generated at the Ashland Great Meadows facility in 1976 to 1977. Mr. Curley testified that Chemical Control handled this waste stream. (Curley Dep. at 145:7-22).

29. Arthur Curley testified that DeRewal Chemical Company did not handle the Phthalide acid layer generated at the Ashland Great Meadows facility in 1976 to 1977. Mr. Curley testified that he thought Modern Transportation handled this waste stream. (Curley Dep. at 147:6-13).

30. Arthur Curley testified that DeRewal Chemical Company did not handle the waste from the Dipan process generated at the Ashland Great Meadows facility in 1976 to 1977. Mr. Curley testified that Chemical Control handled this waste stream. (Curley Dep. at 149:11-21).

31. DeRewal Chemical Company only handled spent acid waste and water from the CDN process for the Ashland Great Meadows facility. (Curley Dep. at 149:11-21; 153:16-21).

32. Ashland's spent acid waste did not contain metals. (Curley Dep. 140:6-9; Deposition Transcript of James Roetzer dated December 19, 2006 ("Roetzer Dep."), at 174:8-10).

33. DeRewal Chemical Company first began hauling Ashland's waste in September 1976. (Deposition Transcript of Manfred DeRewal, Jr. dated March, 12, 2003 ("DeRewal Jr. Dep.") at 66:120).

34. AETC specified that Ashland was to give information to DeRewal Chemical Company regarding the description of its waste materials. (Leuzarder Dep. I at 99:8-13).

35. The first truck load that was picked up by DeRewal Chemical Company from Ashland's Great Meadows facility was brought to the Wissinoming Site. (DeRewal Jr. Dep. at 66:16-67-5).

36. In September 1976, Arthur Curley, Ashland's plant manager, visited the Boarhead Farms Site and met Manfred DeRewal, Sr. (Curley Dep. at 131:1-132:13; AETC166-167).

37. Arthur Curley personally met Manfred DeRewal, Sr. and was comfortable about his handling the Ashland wastes. Mr. Curley concluded "DeRewal is a very innovative person, who can and will come up with solutions to problems. I do not feel he is the type to dump wastes in the first hole he can find." Also, Mr. Curley was informed that DeRewal had been fined by the Pennsylvania Department of Environmental Resources and had been in the headlines. (Memorandum dated, September 20, 1976, Visit with Current Spent Acid Disposer, Arthur Curley ("September 20, 1976 Curley memo") (AETC 166-167)).

38. Arthur Curley testified that although Manfred DeRewal Sr. informed him that DER was giving him problems, Mr. Curley still allowed Mr. DeRewal to handle Ashland's wastes because Ashland had to "look at every source available because there weren't that many sources available." (Curley Dep. at 173:8-14).

39. In order to ensure that DeRewal Chemical Company was handling the Ashland wastes properly, AETC had Arthur Curley visit the Wissinoming Industrial Park in 1976 to verify that materials were being shipped there and to see the process. (Deposition Transcript of Robert W. Landmesser dated December 6, 2004 ("Landmesser Dep.") at 175:23- 177:1).

40. Arthur Curley visited the DeRewal Chemical Company Wissinoming facility with John Leuzarder in October 1976. (Curley Dep. at 128:20-129:4).

41. Leuzarder visited the Ashland facility to pick up Arthur Curley and take him to the Wissinoming Park site to gain Ashland's approval of that facility. (Leuzarder Dep. I at 82:23-25).

42. Specifically, in October 1976, Arthur Curley, Ashland's plant manager, visited and inspected the DeRewal Chemical Company acid neutralizing plant located in Wissinoming, Pennsylvania. (Curley Dep. at 174:17-177:12; AETC 161-162; Deposition Transcript of Robert W. Landmesser dated December 6, 2004 ("Landmesser Dep.") at 173:23-177:1; Leuzarder Dep. I at 37:6-9, 39:15-18, 40:6-7).

43. Arthur Curley visited the DeRewal Chemical Company Wissinoming facility because he was concerned that the wastes were handled properly. (Memorandum entitled Visit to Disposal Site for our CDN Spent Acid, Arthur Curley, dated October 19, 1976 ("Curley October 1976 memo"); Curley Dep. at 128:24-129:4).

44. Although Arthur Curley suspected AETC did not know that much about Manfred DeRewal Sr. and his methods because it took some time before he visited the Wissinoming facility in October of 1976, Ashland continued to use DeRewal Chemical Company to transport and dispose of its wastes. (Curley Dep. at 181:8-11, Exhibit 8).

45. Arthur Curley was a manager of a large chemical plant and was more knowledgeable about the process at Wissinoming than John Leuzarder. (Leuzarder Dep. 1 at 86:17-19).

46. Arthur Curley, after his visit to the DeRewal Chemical Company Wissinoming plant, wrote a memorandum in which he stated that "It would certainly be helpful to obtain (1) more information on the operation of the Philadelphia Sewage system and (2) the relationship of the Pennsylvania Department of Environmental Resources (DER) with the City. This is the agency which Derewal does not want to get involved with." Mr. Curley stated that he put this in the memo so that John Minott, an Environmental Engineer at Ashland's headquarters in Columbus, Ohio, who was copied on the memo, would track it down. There is no evidence that Mr. Minott ever looked into this issue. (Curley October 19, 1977 memo; Curley Dep. 176:4-177:12).

47. Arthur Curley was not impressed with the DeRewal Chemical Company Wissinoming facility but stated that "at least they had a facility to handle it." (Curley October 16, 1976 memo; Curley Dep. at 129:5-17).

48. After visiting the plant, Arthur Curley reached the conclusion that although the facility was not impressive, it was adequate. (AETC 161).

49. In 1976, Arthur Curley, Ashland's plant manager, knew that DeRewal Chemical Company had been fined and made newspaper headlines with respect to pollution problems. (AETC 166-167).

50. John Barsum recalls disposing of the wastes he picked up at Ashland at the Wissinoming Site. (Barsum Dep. at 183:7-11).

51. Manfred DeRewal Jr. testified that he took some of the acid waste he picked up at the Ashland Great Meadows facility to the DeRewal Chemical Company Wissinoming plant. (Deposition of Manfred DeRewal Jr., dated May 13, 2003 ("DeRewal Jr. Dep. 2"), at 404:1-6).

52. Manfred DeRewal Jr. testified that he disposed of waste from the Ashland Great Meadows facility at Boarhead Farms. (Deposition of Manfred DeRewal Jr., dated May 12, 2003 ("DeRewal Jr. Dep. 1"), at 68:1-11).

53. There are no documents that demonstrate that any of Ashland's waste was disposed at Boarhead. (DeRewal Sr. Dep. at 481:20-482:5).

54. In 1977, DeRewal Chemical Company stopped hauling the spent acid from Ashland's Great Meadows facility. Ashland stopped using DeRewal Chemical Company because of a spill at the Wissinoming plant. (Memorandum dated April 14, 1977, CDN Spent Acid Disposal, Arthur Curley ("Curley April 14, 1977 memo").

55. Response costs have not and will not be incurred as a result of wastes generated by Ashland.

**Settled Defendants**

**A. Rohm & Haas:**

1. Rohm & Haas Company (“Rohm & Haas”) is a Pennsylvania Corporation with its principal place of business in Philadelphia, Pennsylvania. (Initial Complaint, dated June 18, 2002, at ¶ 94).
2. Rohm & Haas is a “person” as that term is defined in CERCLA and the HSCA.
3. Rohm & Haas manufactured a product called Sevin. (Deposition Transcript of Manfred DeRewal Sr. dated May 8, 2003 (“DeRewal Sr. Dep.”), at 195:18-210:23).
4. DeRewal Driver John Barsum picked up hydrochloric acid at Rohm & Haas. (Deposition Transcript of John Barsum dated September 8, 2003. (“Barsum Dep.”), at 175:2-177:10).
5. DeRewal Driver Manfred DeRewal Jr. picked up waste at Rohm & Haas (Deposition Transcript of Manfred DeRewal Jr. dated May 12, 2003. (“Derewal Jr. Dep.”), at 110:23-111:22).
6. DeRewal driver Jeffrey Shaak recalled hauling Rohm & Haas drummed waste. (Deposition Transcript of Jeffrey Shaak, dated June 4, 2003. (“Shaak Dep.”), at 90:15-92:4).
7. Marvin Jonas brought material, including ammonia, from Rohm & Haas to the Boarhead Farms Site. (DeRewal Sr. Dep. at 195:18-210:23).
8. Manfred DeRewal Sr. recalled Jonas hauling latex in 5,000 gallon trucks, and fiber packs of “Sevin” insecticide in drums from Rohm & Haas to Boarhead. (DeRewal Sr. Dep. at 199:21-206:5).
9. Marvin Jonas brought a product called Sevin to Boarhead Farms Site. (DeRewal Sr. Dep. at 393:12-18).
10. Wastes generated by Rohm & Haas and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.
11. Wastes generated by Rohm & Haas and hauled and disposed of by Marvin Jonas included Hazardous Substances as defined under CERCLA and the HSCA.
12. Hazardous Substances generated by Rohm & Haas have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.
13. Response costs have been incurred as a result of the Hazardous Substances generated by Rohm & Haas and released at or from the Site.
14. Rohm & Haas is liable for response costs at the Site under CERCLA and HSCA.

**B. Unisys Corporation:**

1. Defendant Unisys Corporation is a Delaware corporation with a principal place of business in Blue Bell, Pennsylvania. (Plaintiffs' Initial Complaint, ¶ 115, (June 18, 2002)).

2. Unisys is a "person" as that term is defined in CERCLA and the HSCA.

3. Manfred DeRewal, Jr. testified that he picked up waste from Unisys at the Blue Bell facility in 1973 or 1974. (DeRewal, Jr. Dep. at 138:1-9; 139:18-20).

4. Manfred DeRewal, Jr. testified that the Unisys building was not fenced off and was a brick two-story building. (DeRewal, Jr. Dep. at 138:10-20).

5. Wastes generated by Unisys and hauled and disposed of by DeRewal Chemical Company included Hazardous Substance as defined under CERCLA and the HSCA.

7. Hazardous Substances generated by Unisys have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

8. Response costs have been incurred as a result of the Hazardous Substances generated by Unisys and released at or from the Site.

9. Unisys is liable for response costs at the Site under CERCLA and HSCA.

**C. Plymouth Tube Company:**

1. Plymouth Tube Company ("Plymouth") is a Michigan corporation with a principal place of business in Warrenville, Illinois. (Plaintiffs' Initial Complaint, ¶ 82 (June 18, 2002)).

2. Plymouth is a "person" as that term is defined in CERCLA and the HSCA.

3. It is roughly 30 miles from Boarhead to the Plymouth Tube facility. (Barsum Dep. at 251:9-11).

4. DeRewal took waste from Plymouth Tube Company around approximately 1974 or 1975. (Barsum Dep. at 255:8-12).

5. Records indicate that Plymouth paid for exclusive use of the truck. For example, Plymouth paid for 3,000 gallons of waste when it was normally only about 700 or 800 gallons that were actually hauled. In 1972, 16 loads were hauled. Subsequently, this number was later reduced to 5 loads in 1976 and no loads at the present time in 1977. (Plymouth Tube Company's 104(e) Response, dated May 24, 1977).

6. The make-up of Plymouth's waste material is as follows:

HF	Hydro Fluoric	5%
HNO <sub>3</sub>	Nitric	11%
H <sub>2</sub> O	Water	84%

(Plymouth Tube Company's 104(e) Response, dated May 24, 1977).

7. Wastes generated by Plymouth and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

8. Hazardous Substances generated by Plymouth have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

9. Response costs have been incurred as a result of the Hazardous Substances generated by Plymouth and released at or from the Site.

10. Plymouth is liable for response costs at the Site under CERCLA and HSCA.

**D. Quickline Design & Manufacturing Co.:**

1. Quickline Design and Manufacturing Company ("Quickline") is a New Jersey corporation with a principal place of business in Gloucester City, New Jersey. (Plaintiffs' Initial Complaint, ¶ 86 (June 18, 2002)).

2. Quickline is a "person" as that term is defined in CERCLA and the HSCA.

3. The Quickline facility was located in Cherry Hill, New Jersey. (DeRewal Jr. Dep. at 123:5-127:8).

4. Quickline Design & Manufacturing was located at 1 Fellowship Road from 1970 to 1977. (Deposition of Joseph Hochreiter, dated February 7, 2007, 337:16-19).

5. Quickline generated fiber packed waste in 15, 20, and 55-gallon drums. (DeRewal Jr. Dep. at 124:11-17).

6. DeRewal used a straight truck to pick up Quickline's waste. (DeRewal Jr. Dep. at 124:20-125:1).

7. Wastes generated by Quickline and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

8. DeRewal was picking up waste at the Quickline facility from approximately 1974 and 1976. (DeRewal Jr. Dep. at 123:5-127:8; 363:7-14).

9. Waste from the Quickline facility was brought to both the Boarhead Farms Site and Wissinoming. (DeRewal Jr. Dep. at 125:19-126:14).

10. Hazardous Substances generated by Quickline have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

11. Response costs have been incurred as a result of the Hazardous Substances generated by Quickline and released at or from the Site.

12. Quickline is liable for response costs at the Site under CERCLA and HSCA.

**E. United States Navy:**

1. The United States Navy, an instrumentality of the United States of America Government, has a base in Willow Grove, Pennsylvania. (Plaintiffs' Initial Complaint, ¶ 121 (June 18, 2002)).

2. The Navy is a "person" as that term is defined in CERCLA and the HSCA.

3. DeRewal Chemical did business with the naval air station in Hatboro, which is also considered to be in Johnsville. (Deposition Transcript of Manfred DeRewal Sr., dated June 8, 2003 ("DeRewal Sr. Dep."), at 212:21-213:16).

4. Waste was found at the Boarhead Site with Navy tags. (DeRewal Sr. Dep., dated June 9, 2003, at 423:2-20).

5. DeRewal Chemical Company hauled somewhere between 3,300 and 5,500 gallons of "extremely hazardous cyanide waste" from the naval facility. (Deposition Transcript of Joseph Hochreiter, dated February 27, 2007 (citing Deposition Transcript of John Barsum; DeRewal Sr., Letter, dated September 7, 1976 to the Public Works Officer at the Department of the Navy)).

6. Waste generated by the Navy and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

7. Hazardous Substances generated by the Navy have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

8. Response costs have been incurred as a result of the Hazardous Substances generated by the Navy and released at or from the Site.

9. The United States of America is liable for response costs at the Site under CERCLA and HSCA.

**F. Crown Metro, Inc./Emhart Industries Inc./Bostik:**

1. Defendant Crown Metro, Inc. ("Crown" or "Bostik") is a South Carolina corporation with a principal place of business in Hartford, Connecticut. (Plaintiffs' Initial Complaint. ¶ 38 (June 18, 2002)).

2. Bostik is a "person" as that term is defined in CERCLA and the HSCA.

3. DeRewal Chemical Company removed waste from the Bostik facility approximately two or three times. The waste was then disposed of at the Boarhead Farms Site. (DeRewal Jr. Dep. at 118:9-17).

4. The ride from Bostik South to Boarhead took approximately 14 hours. (DeRewal Jr. Dep. at 359:17 - 360:13).

5. DeRewal removed waste from Bostik South between 1975 and 1977, approximately two to three times. (DeRewal Jr. Dep. at 359:17 - 360:13).



6. DeRewal Chemical removed nitrating acid from Bostik South, as well as delivered virgin nitrating acid to them. (DeRewal Sr. Dep. at 245:10 - 246:10).

7. Wastes generated by Bostik and hauled and disposed of by Jonas Waste included Hazardous Substances as defined under CERCLA and the HSCA.

8. Hazardous Substances generated by Bostik have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

9. Response costs have been incurred as a result of the Hazardous Substances generated by Bostik and released at or from the Site.

10. Bostik is liable for response costs at the Site under CERCLA and HSCA.

**G. Novartis Corporation (Ciba-Geigy):**

1. Defendant Novartis Corporation ("Novartis") is a New York corporation with a principal place of business in Tarrytown, New York. (Plaintiffs' Initial Complaint, ¶ 72 (June 18, 2002)).

2. Norvartis is a corporate successor to Ciba-Geigy Corporation ("Ciba-Geigy").

3. Norvartis and Ciba-Geigy are each a "person" as that term is defined in CERCLA and the HSCA.

3. The Ciba-Geigy facility was located in Cranston, Rhode Island. (B. DeRewal Dep. at 48:4-25).

4. There was a product manufactured at Ashland called CDN for Ciba-Geigy. It was a herbicide. (Deposition of Alberto Celleri, dated February 2, 2005 ("Celleri Dep.") at 19:12-20).

5. CDN was used as a precursor for Basilen for BASF. (Curley Dep. at 22:8-23:4).

6. DeRewal picked up waste from Ciba-Geigy once a month, totaling approximately three to eight times. (DeRewal Jr. Dep. at 96:2-6).

7. DeRewal began to pick up waste from Ciba-Geigy in 1975 or 1976. (DeRewal Jr. Dep. at 96:17-97:13).

8. A portion of the Ciba-Geigy waste went to the Boarhead Farms Site and a portion of it went to Philadelphia, Wissinoming. (DeRewal Jr. Dep. at 96:17 - 97:13).

9. Three or four tankers went to the Boarhead Site. (DeRewal Jr. Dep. at 96:17-97:13).

10. Ciba-Geigy's acid was always clear. (DeRewal Jr. Dep. at 315:21-316:3).

11. Wastes generated by Ciba-Geigy and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

12. The relationship between DeRewal Chemical and Ciba-Geigy lasted two years, ending in 1977. (DeRewal Sr. Dep. at 163:12-21).

13. On at least one occasion one of the loads DeRewal picked up from Ciba-Geigy was involved in a spill at the Boarhead Site. (B. DeRewal Dep. at 72:9-73:6).

14. There was only one type of waste material that DeRewal Chemical picked up from Ciba-Geigy when Ciba-Geigy was a customer of DeRewal's. (DeRewal Jr. Dep. at 288:10-23).

15. The same type of trailer always went to Ciba-Geigy– an iron tanker. (DeRewal Jr. Dep. at 288:10-23).

16. Hazardous Substances generated by Ciba-Geigy have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

17. Response costs have been incurred as a result of the Hazardous Substances generated by Ciba-Geigy and released at or from the Site.

18. Ciba-Geigy and Novartis are liable for response costs at the Site under CERCLA and HSCA.

#### **H. Thomas & Betts Corporation:**

1. Thomas & Betts Corporation (Thomas & Betts) is a Tennessee corporation with a principal place of business in Memphis, Tennessee.

2. Thomas & Betts is the corporate successor to Ansley Electronics Corporation (“Ansley”).

3. Thomas & Betts and Ansley are each a “person” as that term is defined in CERCLA and the HSCA.

4. Thomas & Betts designs, manufactures, and markets a broad line of electrical and electronic connectors and components, as well as other related products for the construction and original equipment manufacturer markets. (Letter to Mr. Hallberg in response to 104(e) request, dated January 4, 1995).

5. Ansley became a subsidiary of Thomas & Betts on July 1, 1966, and was primarily involved in the manufacture of printed circuit boards for the electronics industry at the Perkasio and New Hope locations. At some point in time the administrative functions for these operations were conducted in Doylestown, Pennsylvania. (Letter to Mr. Hallberg in response to 104(e) request, dated January 4, 1995).

6. Thomas & Betts applied for a wastewater treatment permit for Ansley Electronics, located in East Rockhill Township/Perkasie Borough, Pennsylvania. (Deposition transcript of Philip Carey, dated 1/11/2005 ("Carey Dep."), at 82:11-25; 83:13-18 (Exhibit Carey-5)).

7. The methods used at the Perkasie Facility to dispose or treat by-products and waste included industrial wastewater pretreatment and discharge to the waters of the state, and off-site disposal. Arrangements during the relevant time frame were made by the Perkasie Facility with Scientific Disposal Company for the transport or disposal of waste from the facility's sludge holding system and with A.B.M. Disposal Service Co. for the transport or disposal of waste solvent and aqueous solutions. (Letter to Mr. Hallberg in response to 104(e) request, dated January 4, 1995).

8. Based on information contained in the documents provided by EPA to the Request for Information, the Perkasie Facility made arrangements in 1971 for the transport or disposal of waste with DeRewal Chemical Company. (Letter to Mr. Hallberg in response to 104(e) request, dated January 4, 1995).

9. Wastes generated by Thomas & Betts and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

10. Thomas & Betts generated approximately 8,130 gallons of waste that was hauled by DeRewal Chemical Company. (BH0003526; BH0003527; BH0003529; BH0003531; BH0003533; BH0003536; BH0003540; BH0003540; BH0003542; BH0003543; BH0003545; and BH0003547-BH0003552).

11. Hazardous Substances generated by Thomas & Betts have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

12. Response costs have been incurred as a result of the Hazardous Substances generated by Thomas & Betts and released at or from the Site.

13. Thomas & Betts is liable for response costs at the Site under CERCLA and HSCA.

#### **I. Techalloy Company, Inc./Rahns Specialty Metals, Inc.:**

1. Rahns Specialty Metals, Inc. ("Rahns") is the corporate successor to Techalloy Company, Inc. ("Techalloy") (Response to the Environmental Protection Agency, dated December 18, 1992 ("Techalloy EPA Resp.")(RAHN-0001-10)).

2. Rahns and Techalloy are each a "person" as that term is defined in CERCLA and the HSCA.

3. During the period from 1969 through 1977, Techalloy manufactured specialty steel products, primarily wire rod and strip. (Techalloy EPA Resp. at RAHN-0002).

4. Waste associated with the cleaning process of the wire operations, e.g., spent acids or pickle liquors, included: potassium permanganate, sulfuric acid, nitric, nitric hydrofluoric, sodium hydroxide, muriatic acid, and trichloroethylene. (Techalloy EPA Resp. at RAHN-0002).

5. Alfred Stufflet testified that Techalloy's business mainly involved "drawing wire." (Deposition of Alfred Stufflet, dated December 22, 2004 ("Stufflet Dep."), at 26:9-17).

6. Alfred Stufflet testified that types of stainless that Techalloy would draw in the 1970s included: 302, 304, 316, 316L, 317, 621, 647, 430, 416, 410, 420, etc. (Stufflet Dep. at 69:2-6).

7. Theodore Hahn testified that trichloroethylene was used to clean wire. (Hahn Dep. at 59:1-11).

8. Thomas Hess testified that the laboratory at Techalloy was located in the strip department in the 1970s. (Deposition of Thomas Hess, dated December 24, 2004 ("Hess Dep.") at 89:16-25).

9. Thomas Hess testified that the raw material at Techalloy was rod, trucked in from Carpenter Technology. (Hess Dep. at 17:18-25).

10. Bruce DeRewal testified that Techalloy was housed in a one-story building where he would back down the side to the building and Techalloy employees would bring a hose out to the trailer. (B. DeRewal Dep. at 14:1-20).

11. Theodore Hahn testified that Techalloy produced drummed waste of lubricants, trichloroethylene, and cyanide. (Deposition of Theodore Hahn, dated January 27, 2005 ("Hahn Dep."), at 52:1-14).

12. Manfred DeRewal, Sr. testified that he did business with Techalloy. (DeRewal, Sr. Dep. at 146:5-7).

13. Bruce DeRewal testified as to traveling to Techalloy with a rubber-lined tanker. (B. DeRewal Dep. at 23:12-17).

14. Bruce DeRewal testified as to the cessation of DeRewal drivers traveling to Techalloy prior to DeRewal Chemical Co.'s shutdown. (B. DeRewal Dep. 34:9-14).

15. Manfred DeRewal, Jr. testified that Techalloy was located on Route 113 in Rahns. (DeRewal, Jr. Dep. at 129:11-24).

16. Manfred DeRewal, Jr. testified that Techalloy was located behind gates. (DeRewal, Jr. Dep. at 130:19-25).

17. Manfred DeRewal, Jr. testified that he picked up waste from Techalloy using a 4,000 gallon rubber-lined tanker. (DeRewal, Jr. Dep. at 131:13-21).

18. Theodore Hahn testified that the hauler would rely on analysis performed by Techalloy that the waste was neutralized, prior to hauling it to its facility. (Hahn Dep. at 46:23-25; 47:1-11).

19. Alfred Stufflet testified that the oil sump was located outside of the fine wire building at Techalloy. (Stufflet Dep. at 36:11-20).

20. From 1972 until 1973, Techalloy generated approximately 238,650 gallons of spent acid and pickle liquor waste that was disposed of off-site. (Hahn Dep. at 58:6-23; DeRewal Jr. 129:1-25-132:1-25; Stephens Dep. at 62:3-25; Bean Dep. at 35:4-24; Rahns Specialty Metals, Inc.'s (formerly "Techalloy") Response to the Environmental Protection Agency, dated December 18, 1992 (RAHN-0001-10)).

21. Wastes generated by Techalloy and hauled and disposed of by DeRewal Chemical Co. included Hazardous Substances as defined under CERCLA and the HSCA.

22. Hazardous Substances generated by Techalloy have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

23. Response costs have been or will be incurred as a result of the Hazardous Substances generated by Techalloy and released at or from the Site.

24. Techalloy is liable for response costs at the Site under CERCLA and HSCA.

**J. Flexible Circuits/Etched Circuits, Inc.:**

1. Flexible Circuits is a manufacturer of printed circuit boards. Flexible Circuits was incorporated in 1963. In 1969, it acquired all of the stock of Etched Circuits. Flexible Circuits was located in Warrington, Pennsylvania and Etched Circuits was located in Cherry Hill, New Jersey. Both Flexible Circuits and Etched Circuits are Defendants in this case.

2. Etched Circuits was a wholly owned subsidiary of Flexible Circuits and in 1990 Flexible Circuits closed Etched Circuits.

3. The parent company for Flexible Circuits and Etched Circuits is fcg. Inc. (Stollsteimer Dep. at 70:22-71:8).

4. Flexible Circuits, Etched Circuits and fcg, Inc. are each a "person" as that term is defined in CERCLA and the HSCA.

5. Melvin Bach began working at Flexible Circuits in 1968. (Deposition of Melvin Bach, dated December 22, 2004 ("Bach Dep."), at 8:6-10).

6. Melvin Bach was president of Etched Circuits in 1987. (Bach Dep. at 71:21-72:6).

7. In the 1970s, the product at Flexible Circuits would have an image applied to copper. Those areas that were covered by the organic imaging material would remain. Those areas not covered by the organic imaging material would be dissolved in an etchant. Subsequently, the product would have the organic material removed and there would be a dielectric put over top. The dielectric trim was applied in a heated laminating press. There was non-contact cooling water generated from the heated laminated press. After it went through the spray of etchant, the product went through nip rolls that squeezed out the etchant back into a sump. Subsequently, it was hit with rinse water in a recirculating rinse tank. (Bach Dep. at 85:18 – 88:4).

8. From 1968 until 2005, Flexible Circuits had a multiplicity of plating operations. (Bach Dep. at 13:21-14:12).

9. The copper plating at Flexible Circuits started in 1971-1973. (Bach Dep. at 13:21-14:12).

10. Flexible Circuits produced products called circuitstrip, power busbars and flexible circuitry. (Deposition Transcript of George Stollsteimer, dated December 22, 2004 (“Stollsteimer Dep.”), at 9:10-21).

11. In 1969, Flexible acquired Etched Circuits, a company that manufactured rigid circuit boards. (Stollsteimer Dep. at 28:18-29:7).

12. Etched Circuits conducted nickel plating. (Stollsteimer Dep. at 32:9-23).

13. In the 1970s, Etched Circuits produced a rigid circuit board and assemblies thereof. (Stollsteimer Dep. at 53:14-54:23).

14. Prior to November 1977, Ralph Parker was the general manager of Etched Circuits. (Stollsteimer Dep. at 78:1-79:25).

15. In the 1980s, Richard Yeatman ran the wastewater treatment facility at Etched Circuits. (Deposition of Richard Yeatman, dated November 11, 2004 (“Yeatman Dep.”), at 13:10-14:3).

16. In the 1970s, the plating operation at the Flexible Circuits facility generated rinse waters. (Bach Dep. at 11:21-12:19).

17. The first rinse at the Flexible Circuits’ facility for the plating operation would be used to capture any waste gold so it would not be discharged to the drain. (Bach Dep. at 11:21-12:19).

18. The second rinse at the Flexible Circuits’ facility for the plating operation was discharged to the drain. (Bach Dep. at 11:21-12:19).

19. In 1977 – 1978, Flexible Circuits generated approximately one hundred gallons a day of the second rinse water from the plating operations. (Bach Dep. at 15:15-16:6).

20. In the 1970s, when Flexible Circuits was discharging the second rinse water from the plating operations to the sewer system, the Warrington Municipal Sewer Authority had limits for copper. (Bach Dep. at 17:13-18:8).

21. The second rinse water from the Flexible Circuits plating operations exceeded the Warrington Municipal Sewer Authority's copper limits in the mid-1970s. (Bach Dep. at 17:13-18:8).

22. The Warrington Municipal Sewer Authority in the 1970s asked Flexible Circuits to stop discharging the rinse water to the sewer. (Bach Dep. at 18:9-19:3).

23. In the 1970s, Mr. Bach testified that the etching process at the Flexible Circuits facility also produced waste rinse water. (Bach Dep. at 28:11-29:2).

24. In the 1970s, the spent etchant at the Flexible Circuits facility would become concentrated above a certain level and would have to be decanted. It would contain 30 ounces per gallon of copper that would be sold to make fertilizer. (Bach Dep. at 88:5-25).

25. The material from the recirculating rinse tank at the Flexible Circuits facility would be discharged to the municipal sewer except when the Warrington Municipal Sewer Authority thought it was too high in copper, then it was put into storage tanks. (Bach Dep. at 88:17-25).

26. In the 1970s, DeRewal Chemical Company installed the two tanks on Flexible property. Mr. Bach spoke to Manfred DeRewal regarding the work. (Bach Dep. at 20:1-8).

27. The tanks installed by DeRewal Chemical Company at the Flexible Circuits facility held dilute wastewater and water. (Bach Dep. at 23:18-23).

28. A thousand gallon storage tank was installed at the Flexible Circuits facility in 1975-1976. (Bach Dep. at 25:6-25).

29. In 1977-1978, there were two additional tanks installed at the Flexible Circuits facility, a 500-gallon tank to hold fresh etchant and a 250-gallon tank to hold spent etchant. (Bach Dep. at 25:6-25).

30. In the mid-1970s, DeRewal Chemical Company was hauling dilute rinse waters from the plating and etching operations at the Flexible Circuits facility. (Bach Dep. at 30:5-12).

31. Etched Circuits had a waste stream of spent etchant from its processes. (Stollsteimer Dep. at (54:15-23).

32. Etched Circuits also had a waste stream from the plating operations because once it was plated it would have to be rinsed. (Stollsteimer Dep. at 56:8-20).



33. Etched Circuits used DeRewal Chemical Company to haul its waste. (Stollsteimer Dep. at 57:21-58:4).

34. In the 1970s, DeRewal Chemical Company picked up wastes from Flexible Circuits. (Deposition Transcript of John Barsum, dated September 8, 2003 ("Barsum Dep."), at 154:8-155:16; Deposition Transcript of Manfred DeRewal Jr., dated May 12, 2003 ("DeRewal Jr. Dep."), at 80:16-25).

35. In the 1970s, waste picked up from the Flexible Circuits facility by DeRewal Chemical Company was disposed of at the Boarhead Farms Site. (Barsum Dep. at 157:17-158:17; DeRewal Jr. 86:4-87:8).

36. In the 1970s, DeRewal Chemical Company picked up wastes from Etched Circuits. (Barsum Dep. at 179:7-25).

37. The volume of Flexible and Etched Circuits waste that was picked up by DeRewal in the 1973 to 1977 timeframe is 76,573 gallons.

38. Wastes generated by Flexible Circuits and Etched Circuits hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

39. Hazardous Substances generated by Flexible Circuits and Etched Circuits have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

40. Response costs have been incurred as a result of the Hazardous Substances generated by Flexible Circuits and Etched Circuits at or from the Site.

41. Flexible Circuits and Etched Circuits are liable for response costs at the Site under CERCLA and the HSCA.

**K. Simon Wrecking Co., Inc.:**

1. Simon Wrecking, Co. ("Simon") is a corporation located at 2525 Trenton Avenue, Williamsport, Pennsylvania.

2. Simon is a "person" as that term is defined in CERCLA and the HSCA.

3. DeRewal Chemical Company picked up waste from Simon Wrecking in Williamsport. (Barsum Dep. at 166:12 - 167:2).

4. DeRewal used a flatbed trailer to pick up waste from Simon; either a 35-foot or 40-foot trailer. (DeRewal, Jr. Dep. at 112:18 - 113:12).

5. DeRewal picked up sulphuric nitric from Simon. (DeRewal Jr. Dep. at 112:18 - 113:12).

6. DeRewal picked up waste from Simon Wrecking in the summer of 1974 or 1975. (DeRewal Jr. Dep. at 112:18 - 113:12).

7. The drums picked up from Simon were not a standard round, but rather, they were coned up at the top, same as the bottom, and they were red in color. The drums were approximately 55 gallons. They were not sealed, and just had the plastic bungs. (DeRewal Jr. Dep. at 427:21 - 428:16).

8. Simon Wrecking operated during the period of interest, 1969 to 1977. (Deposition transcript of Joseph Hochreiter, dated 2/27/2007, at 350:5-12).

9. Wastes generated by Simon and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

10. Hazardous Substances generated by Simon have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

11. Response costs have been incurred as a result of the Hazardous Substances generated by Simon and released at or from the Site.

12. Simon is liable for response costs at the Site under CERCLA and HSCA.

**L. Knoll, Inc./Knoll International, Inc.:**

1. Defendants Knoll International, Inc. and Knoll, Inc. are the corporate successors to Art-Metal Knoll Corporation.

2. Knoll International, Inc. and Knoll, Inc. are each a "person" as that term is defined in CERCLA and the HSCA.

3. DeRewal Chemical picked up waste from Art-Metal Knoll until 1977. (Barsum Dep. at 52:7-13).

4. DeRewal used a Quaker City 4,000-gallon tanker to remove the waste from Art-Metal Knoll. (Barsum Dep. at 98:4-105:3).

5. DeRewal went to Art-Metal Knoll approximately six times in a year, about every month or month and a half. (Barsum Dep. at 98:4 - 105:3).

6. The Art-Metal Knoll material went exclusively back to Boarhead Farm. (Barsum Dep. at 98:4 - 105:3).

7. The first time John Barsum went to Art-Metal Knoll was in or about 1974. (Barsum Dep. at 214:12 - 216:23).

8. Wastes generated by Art-Metal Knoll and hauled and disposed of by DeRewal Chemical Company included Hazardous Substances as defined under CERCLA and the HSCA.

9. Hazardous Substances generated by Art-Metal Knoll have been released into the environment at or from the Site as that term is defined in CERCLA and the HSCA.

10. Response costs have been incurred as a result of the Hazardous Substances generated by Art-Metal Knoll and released at or from the Site.

11. Knoll International Inc. and Knoll, Inc. are liable for response costs at the Site under CERCLA and HSCA.

#### **IV. FACTS SUPPORTING AETC'S CASE**

In addition to the facts stated above as to Diaz and Ashland, AETC sets forth the following facts:

1. In August 1976, Robert Landmesser and John Leuzarder started Advanced Environmental Technology Corporation. (Deposition of Robert Landmesser dated November 22, 2004 ("Landmesser Dep."), at 30:1-11).

2. AETC was created to help companies find ways of recycling, recovering and properly disposing of hazardous and non-hazardous waste materials. (Deposition Transcript of John Leuzarder dated November 29, 2004 ("Leuzarder Dep."), at 19:20-20:7).

3. AETC would recommend a facility for waste disposal and then AETC's customers would have to approve the recommended facility. (Leuzarder Dep. at 27:11-18).

4. The haulers that AETC used in 1976 and 1977 were separate companies governed by their own rules and regulations and they were not part of AETC. (Landmesser Dep. at 151:15-21).

5. AETC chose its waste haulers from a list provided by the State of New Jersey of permitted haulers. (Leuzarder Dep. at 31:1-10).

6. In the 1976-1977 time period, Manfred DeRewal had licenses from government agencies to haul waste. (Landmesser Dep. 2 at 169:10-21).

7. The Boarhead Farms Site was Manfred DeRewal Sr.'s personal residence. (Landmesser Dep. 2 at 149:19-25).

8. Ashland had a very difficult acid stream that they could not find anyone to dispose of. (Leuzarder Dep. at 33:18-35:5).

9. Ashland and AETC evaluated the Wissinoming facility together and Ashland approved the use of the facility to handle its nitrating acid waste. (Leuzarder Dep. at 83:13-84:5).

10. In 1996, Manfred DeRewal Sr. testified that all of Ashland's waste was disposed of at the Wissinoming facility. In his deposition in the present case, Mr. DeRewal testified that Ashland's waste was taken to the Boarhead Farms Site. When asked about his earlier

testimony, Mr. DeRewal stated that he lied. The earlier testimony as to Ashland is the more reliable testimony. (Deposition of Manfred DeRewal Sr., dated May 9, 2003 ("DeRewal Sr. Dep."), at 478:24-481:19).

11. Manfred DeRewal Sr. also testified in this case that he purposely mislead the EPA by providing incomplete employee lists. (DeRewal Sr. Dep., Day 2, at 305:2-19).

12. John Leuzarder testified that in 1976 he believed that Wissinoming was an approved site for handling acid wastes. (Leuzarder Dep. at 221:15-222:15).

13. Robert Landmesser understood his agreement with Manfred DeRewal Sr. to be that the material DeRewal Chemical Company picked up from Ashland and Diaz would be disposed of at the Wissinoming facility. (Deposition Transcript of Robert Landmesser dated December 6, 2004 ("Landmesser Dep. 2"), at 162:4-16).

14. The only place AETC ever contemplated the acid waste being disposed of was at the Wissinoming facility, because the waste had to be neutralized. (Landmesser Dep. 2 at 173:13-174:6).

15. Robert Landmesser understood that the only facility that could handle Ashland and Diaz's nitrating acid was DeRewal Chemical Company's Wissinoming facility. (Landmesser Dep. 2 at 162:9-16).

16. John Leuzarder testified that Manfred DeRewal Sr. appeared to be very knowledgeable about the field of acid and chemical neutralization. (Leuzarder Dep. at 38:2-10 and 41:8-17).

17. Manfred DeRewal Sr. showed John Leuzarder the permit he had to discharge neutralized acid from the Wissinoming facility into the river. (Leuzarder Dep. at 40:22-41:7).

18. Manfred DeRewal Sr. did not indicate any other disposal sites for the acid waste he picked up from AETC's customers except for the Wissinoming facility. (Leuzarder Dep. at 61:24-62:9).

19. To AETC's knowledge, DeRewal Chemical Company was taking AETC's customer's waste to the Wissinoming facility. (Leuzarder Dep. at 73:22-74:6).

20. John Leuzarder believed that Ashland's solvent waste went to Marisol for recovery and he also testified that Marisol would have transported that waste. (Leuzarder Dep. at 81:21-82:14).

21. In 1976 to 1977, DeRewal Chemical Company picked up from Ashland one to three times a week. Each load would be approximately 3,000 gallons. (Leuzarder Dep. at 96:1-11).

22. In 1976-1977, John Leuzarder testified that he did not know anyone more knowledgeable than Manfred DeRewal Sr. about disposal of, neutralizing or distilling waste. (Leuzarder Dep. at 224:16-25).

23. Thomas Healey, who worked for the Philadelphia Water Department, stated that Robert Landmesser and John Leuzarder were “very cooperative” in the investigation of the Wissinoming facility, which ultimately lead to the discovery of the Boarhead Farms Site. (Deposition of Thomas Healey at 84:17-85:3).

**V. EXPERT TESTIMONY TO BE OFFERED ON  
BEHALF OF AETC AND ASHLAND**

1. Ashland’s non-metal bearing wastes did not contribute to the extent and cost of remediation because they did not increase the mobility of metals. (Expert Report of Ashland pg. 3, Deposition of James Roetzer dated December 19, 2006 (“Roetzer Dep.”) at 147:13-148:10, 174:2-10; Deposition of W. Leigh Short dated December 18, 2006 (“Short Dep.”) at 126:14 - 129:3, 130:3-132:1, 132:13-136:21, 138:17 - 140:3).

2. Any potential impact of acids on metal mobility would have been localized and short-lived. (Ashland Expert Report, pg. 3, Remedial Investigation Report, pg 4-5 and 5-5; Roetzer Dep. at 158:1-159:1 and 159:14-163:1; Short Dep. at 162:16 - 170:6).

3. Most of the monitoring wells at the site reported pH values in the neutral range of pH. (Ashland Expert Report, pg. 3).

4. The likely primary source of metal contamination at the Boarhead Farms Site was the high concentration of metals in pickling acid and other metal treatment wastes. (Ashland Expert Report pg 4; Roetzer Dep. at 177:21-179:5 and 180:10-181:4; Short Dep. at 185:16-186:20 and 187:22-190:20).

5. The metals, acids and chlorinated organic solvents found on the Boarhead Farms Site are consistent with those known to be used in metal plating and finishing operations. (Ashland Expert Report pg. 4; Short Dep. at 207:10-209:18).

6. Due to the relatively high groundwater flow rates near the source areas at the Boarhead Farms Site, any mobile constituents would have rapidly migrated down gradient of the source areas. Subsequent disposal of non-metal bearing waste acids could not have affected the mobility and transport of these materials. (Ashland Expert Report pg. 4; Roetzer Dep. at 192:16-193:13; Short Dep. at 200:3-201:24).

7. Acid conditions do not increase the mobility of all metals, including arsenic and chromium. (Ashland Expert Report pgs. 4-6; Roetzer Dep. at 194:12-196:7, 197:4-198:10 and 217:10-225:11; Short Dep. at 209:19-212:8, 212:10-216:7 and 218:10-223:7).

8. The mobility of metals in the subsurface environment is controlled by a number of factors, including the form of the metal, pH, oxidation-reduction potential, inorganic and organic complexing agents, adsorption, precipitation and biological activity. (Ashland Expert Report, pg. 5; Roetzer Dep. at 211:19-217:9; Short Dep. at 223:19-224:20 and 224:23-234:5).

9. The alleged disposal of Ashland’s non-metal bearing acid wastes at the Boarhead Farms Site in or subsequent to August 1976 did not result in increased response costs

from any potential increased mobility of contaminants from drummed wastes. (Ashland Expert Report, pg. 6; Roetzer Dep. at 225:6-227:8; Short Dep. at 248:7-19, 249:8-250:11 and 288:18-290:2).

10. The distribution of contaminants disposed of as bulk wastes were not affected by co-disposal of Ashland's non-metal bearing acid wastes at the Boarhead Farms Site in or subsequent to August 1976. (Ashland Expert Report, pgs. 6-7; Short Dep. at 198:4 - 200:2, 250:13-254:7 and 255:8-256:2).

11. Drum degradation and the release of any contaminants in drummed wastes would have occurred for most drummed wastes regardless of any potential co-disposal of acids with drummed wastes. (Ashland Expert Report, pg. 8; Short Dep. at 275:2-281:3, 281:4-283:1, 283-286:2, 286:9-287:3 and 287:4-288:7).

12. A number of drums disposed of at the Boarhead Farms Site were emptied prior to disposal (DeRewal Jr. Dep. at 86:22-89:2).

13. The alleged disposal of non-metal bearing acid wastes at the Boarhead Farms Site in or subsequent to August 1976 did not contribute to the environmental conditions that lead to soil remediation response action in Operable Unit #2 (OU2). (Ashland Expert Report pgs. 8-9; Short Dep. 290:3-292:9, 2999:19-301:12 and 316:3-318:11; Deposition of Gordon Jamieson dated December 20, 2006 ("Jamieson Dep.") at 14:10 - 15:8 and 32:16-33:13).

14. DeRewal Chemical Company allegedly disposed of bulk waste in an open field and the swamp located at the Boarhead Farms Site. (Shaak Dep. at 41:25-43:18, Exhibit P-62; Short Dep. at 300:14-301:5; Jamieson Dep. at 33:14-34:17).

15. DeRewal Chemical Company allegedly disposed of Diaz and Ashland's spent acid by the edge of a small pond in front of the office at the Boarhead Farms Site. (DeRewal Jr. Dep. at 68:1-69:5; 76:20-77:16 and 78:3-79:23; Exhibit P-8; Short Dep. at 300:14-301:5; Jamieson Dep. at 33:14-34:17).

16. Landmesser and Leuzarder reasonably expected that the acid from Ashland and Diaz would be transported to Wissinoming. (Deposition Transcript of Kenneth Goldstein dated December 12, 2004 ("Goldstein Dep.") at 183:12-15; Report of Kenneth Goldstein dated September 27, 2006 at p. 18).

17. Although both Landmesser and Leuzarder had visited Boarhead, they believed that the farm was Manfred DeRewal Sr.'s country residence. AETC did not transport any waste to Boarhead or broker any business deal that contemplated transport of any waste to Boarhead. (Goldstein Dep. at 182:18-25).

18. The bills of lading had Wissinoming as their destination. (Goldstein Dep at 184:5-7).

19. The acid waste from Ashland and Diaz required specialized equipment to transport and then treat the waste stream. The Wissinoming facility had the equipment and

supplies necessary to treat Ashland and Diaz's waste. (Goldstein Dep. at 183:17-21; Goldstein Report p. 19; Landmesser Dep. at 170:25 -171:2 ).

20. The set up at Wissinoming was adequate to treat Ashland and Diaz's acid waste. (Goldstein Dep. at 187:1-8).

21. DeRewal Chemical Company provided adequate and appropriate permits to AETC's representatives. Manfred DeRewal Sr. represented to AETC that DeRewal Chemical Company had permits for the discharge of waste water and for its transport vehicles and showed AETC copies of the permits. (Goldstein Dep. at 199:21-25; Goldstein Report at p. 16).

22. The decision to utilize DeRewal Chemical Company's treatment facility was made by Ashland and Diaz representatives. (Goldstein Dep. at 188:17-25).

23. AETC conducted its business in compliance with state of the art hazardous waste management, as it existed in 1976 to 1977. (Goldstein Dep. at 193:16-17).

24. Manfred DeRewal Sr. and DeRewal Chemical Company deceived AETC and its customers into believing that the entirety of the transported waste streams were being properly treated at the Wissinoming facility. (Goldstein Report at 20).

25. AETC, as a broker, was not subject to any regulatory requirements in New Jersey in 1976 and 1977. (Goldstein Dep. at 149:22-150:7).

26. AETC will be relying upon the expert opinion of Joseph Hochreiter, Jr. and the numbers he sets forth on waste generation and disposal for each Plaintiff and the Settled Defendants, where such numbers are provided. (Expert Report of Joseph J. Hochreiter, Jr., dated September 29, 2006).

## **VI. FACT WITNESS LIST**

AETC reserves the right to call these witnesses and any witness identified by the other parties. If any of the below witnesses are unavailable to testify at trial, AETC intends to offer into evidence those portions of their deposition transcripts.

It is anticipated that the following witnesses will appear and give testimony at the time of trial concerning the above referenced facts and expert issues:

### **A. Plaintiffs:**

1. Ford Motor Company:
  - a. Brian Bussa
2. SPS Technologies, LLC:
  - a. David Stewart



b. Dennis Shea

3. American Cyanamid (Cytec Industries Inc.):

a. Sidney A. Frankel

b. Joel Jerome

4. Agere Systems, Inc.:

a. Marianne Santarelli

5. TI Group Automotive Systems LLC: (See NRM)

6. Plaintiffs' Group Experts:

a. Jay Vandeven

b. Jurgen H. Exner, Ph.D.

**B. Non-Settling Defendants:**

1. Advanced Environmental Technology Corp.:

a. Robert W. Landmesser

b. John P. Leuzarder, Jr.

c. Walter Risi

d. Kenneth Goldstein, PE (expert witness)

e. Arthur T. Curley

f. Gordon R. Jamieson, PG (expert witness)

g. James F. Roetzer, Ph.D. (expert witness)

h. W. Lehigh Short, Ph.D., P.E. (expert witness)

2. Carpenter Technology Corporation:

a. James I. Adams

b. Richard C. Cheri

c. Robert Elbert

d. David E. Mann, Sr.

- e. William Reger
- f. Edward M. Straka
- g. Franklin Mink (expert witness)

3.. Handy & Harman Tube Co., Inc.:

- a. Thomas Bell
- b. Thomas M. Curran
- c. Mary A. Kollmar
- d. James McElya
- e. Larry Rees
- f. Kirk W. Brown (expert witness)

4. Ashland, Inc.:

- a. Alberto Celleri
- b. Arthur T. Curley
- c. Charles Hendershot
- d. Howard L. Hendershot
- e. Charles R. Wilcox, Jr.
- f. Gordon R. Jamieson, PG (expert witness)
- g. James F. Roetzer, Ph.D. (expert witness)
- h. W. Lehigh Short, Ph.D., P.E. (expert witness)

5. National Rolling Mills (NRM investment Company):

- a. Frederick Chesky
- b. Michael J. Civitello
- c. Peter G. Freda
- d. Fred Piotti, Sr.
- e. Santo F. Quici

- f. Merle Winters
- g. Franklin Mink (expert witness)

6. Diaz Chemical Corporation:

- a. Stanley J. Chiras
- b. Theodore Jenney
- c. Diane Shampine

7. Non-Settled Defendants' Group Expert:

- a. Joseph J. Hochreiter, Jr.

**C. Settled Defendants:**

1. Thomas & Betts:

- a. Philip Carey

2. Flexible Circuits:

- a. Melvin A. Bach, III.
- b. Richard T. Yeatman, Sr.
- c. George B. Stollsteimer
- d. Thomas E. Pease, Ph.D., P.E. (expert witness)

3. Merit Metals:

- a. Lorna Goldstein
- b. Leonard Sayles
- c. Leonard Wolberg

4. Techalloy:

- a. Theodore Hahn
- b. Thomas Hess
- c. Peter Senin
- d. Alfred Stufflet

e. Franklin Mink (expert witness)

**D. Non-Party Witnesses:**

1. DeRewal Chemical Company:
  - a. John Barsum
  - b. John C. Bean
  - c. Karen Castillo
  - d. Linda Cochran
  - e. Bruce DeRewal
  - f. Manfred DeRewal, Sr.
  - g. Elaine Gawronski
  - h. Karen Porter
  - i. June A. Stephens
2. Former District Attorney, David F. Michelman, Esq.
3. N. Perkiomen Township Road Master & Fire Marshal, John T. Moran, Sr.
4. Philadelphia Water Department, Thomas Healey.

**VII. EXHIBITS**

AETC's Exhibit List is attached. AETC reserves the right to identify and use any Exhibit identified by any other party.

**VIII. RELIEF SOUGHT**

AETC seeks contribution and/or indemnification from the Plaintiffs and Defendants for any response costs allocated to AETC.

**IV. TRIAL TIME**

AETC anticipates that it will need 7-10 days for its case in chief.

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Advanced Environmental Technology Corp.

By 

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Dated:

5/19/08

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